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Surgeon E. O. F. Roler's Report to Surgeon-Gen. R. N. Barr.

HEADQUARTERS 15TH A. C.,
SCOTSBORO, ALA., December 30, 1863.

SIR: I have the honor to submit the following report in relation to the management and final disposition of the wounded of the 15th Army Corps, at Chattanooga, Tenn., of whom I was ordered to take charge immediately after the battle of Missionary Ridge, on the 24th and 25th of November, 1863.

The hospital organizations consisted of the 2d Division Field Hospital, in charge of Surgeon E. M. Joslin, 6th Missouri Volunteers; 3d Division Field Hospital, in charge of Surgeon Dudley Rogers, 59th Indiana Volunteers, and 4th Division Field Hospital in charge of Surgeon W. W. Bridge, 46th Ohio Volunteers. These hospitals were located 3½ miles above Chattanooga, contiguous to the river, where they had been hastily established during the engagement of their respective commands with the enemy, near the eastern extremity of Missionary Ridge.

The 1st Division having operated along the slope of Lookout Mountain on the right, in conjunction with the 11th and 12th corps, and subsequently at Ringgold, where it sustained the heaviest loss, had its wounded transferred from the temporary field

depots, in common with those of other corps, to the General Field Hospital in Chattanooga, or to buildings taken for hospital purposes after the tents had been too much crowded for further admission of patients.

Assistant Surgeon D. S. Huntington, U. S. A., of the Department Director's Office, having arrived the day after the battle, at once rendered prompt assistance in supplying many of the immediate wants, and to whose continuous aid we were largely indebted for many of the needful supplies and comforts for the wounded. With the view of giving prompt attention to every demand for their proper care, an arrangement was made by which Assistant Surgeon Huntington assumed the management of the wounded of the 1st Division, many of whom in consequence of the sudden influx to the hospitals, were but indifferently cared for and without surgical attendance, while the division hospitals were assigned to my own especial supervision. With a good deal of trouble and labor, the wounded in town were collected together and provided with subsistence and surgical care until the organization of the General Field Hospital had become fully systematized and its capacity suited for further admission.

The most of these wounded, however, were shortly afterward transferred by boat to Bridgeport, under the superintendence of the Surgeon-in-Chief of the Division, by order of the Brig. General commanding.

A few cases, numbering 25 or 30 men, were left in the general field hospitals, where they yet remain under treatment.

No reports have been received from the Surgeon-in-Chief of the Division relative to the final disposition of the men, and I am unable to make any official report, my information being derived only from incidental sources.

The wounded of the 2d, 3d and 4th Divisions were treated in hospitals and wall tents, supplied from the regiments of the corps, with the exception of ten or twelve cases of the 4th Division, mostly officers, who were provided with beds in adjoining buildings. Many of the tents used were in bad condition, were

old and worn, without flys, and otherwise damaged during transportation from Vicksburg with the army. Neither cots or mattresses could be obtained for the men, and only a partial supply of blankets could be furnished for immediate use, by the Medical Purveyor of the Army of the Cumberland. The timely arrival, however, of Surgeon Bailey, from Nashville, with special supplies for the corps, gave us an ample supply of the latter, which were freely distributed to the patients until other means could be instituted for their comfort. The surgeons in charge were directed to procure details from the camps, and with lumber taken from vacant buildings, wherever found, construct bunks or elevated platforms upon which the men could be placed on hay and blankets, and thus be removed from dampness and from unhealthy proximity with the ground. Some delay was caused from difficulty in obtaining the necessary materials, and even the few implements required for their construction were not obtained without considerable trouble and some loss of time. The work was accomplished, however, with as little delay as could be expected. All these unfavorable circumstances of situation are to be taken into account in making up the deficiencies of care and comfort of hundreds of wounded men, suddenly placed in charge of surgeons after a great battle. With many, at a distance from the field of military operations, and unacquainted with the exigencies resulting from the movement of armies, such faults and deficiencies may seem inexcusable and deserving of censure. But it is to be remembered that the 15th Army Corps had traveled by river and railroad, and marched a distance of 800 miles to reach their destined field of battle, and had gone into action without opportunity being given for meeting consequent results and emergencies.

Wherever brick could be obtained they were used in the constructions of chimneys and flues, and where this could not be done the tents were heated by fires in front, or kettles filled with coals and placed in the center.

Subsistence for the men was procured at first from the Commissaries of Divisions, and subsequently from the Commissary of

Hospitals in Chattanooga. Owing to the deficiency of supply in the subsistence department, the rations were neither abundant nor of the quality desired, but with judicious use and economy, sufficed to meet the demands of the patients. Hard bread in one-half or three-fourths rations had to be taken the greater portion of the time instead of flour, although excellent brick ovens had been built, with the view of furnishing good soft bread to all the hospitals. Abundant supplies of fresh beef were obtained by foraging parties set out for that purpose. At no time during the existence of the hospitals was there any cause of complaint from hunger, or for want of some nutritious article of diet.

The hospitals were continued until the 20th of the present month, twenty-five days from the date of their organization. The roads to Chattanooga having become almost impassable, in consequence of the heavy rains, and the increasing difficulty of getting subsistence for the men and forage for the teams, rendered their further continuance in that locality impracticable. The alternative was presented of either transferring the hospitals to Chattanooga or Bridgeport, or making such disposition of the wounded as would enable us to break them up altogether and forward the tents and hospital property to the several regiments. With the advice and under the direction of Medical Director Perrin, of the Army of the Cumberland, arrangements were made for the transfer of all wounded who were not able to receive furloughs, to the General Field Hospitals, in Chatanooga, to be accompanied by a detail of as many medical officers as might be needed. Instructions to this effect were accordingly issued to the surgeons in charge of the hospitals, with additional orders for the transfer of the remainder of the wounded and the few sick, and all tents and hospital property to the hospital landing, where they would be provided for until transportation could be furnished by boat to Bridgeport.

Ambulances were promptly furnished by Surgeon Perrin, and the wounded were all removed on the 21st and 22d, together with all tents and other property of the three Divisions. The latter,

with the sick and the wounded designated for furlough, were brought by boats to Bridgeport on the 23d and 24th, and where all patients were sent to the camp hospital; the sick to remain; and the wounded, most of whom had received their furloughs, to await transportation by railroad to their homes in the North. A few were supplied with descriptive rolls, and will probably be retained in the hospitals at Nashville until furloughs are granted by the military authorities at that place, on application of the surgeon in charge.

The total number of wounded treated in the three Division hospitals were 733, who were distributed as follows:

Second Division Hospital	74
Third " "	248
Fourth " "	411

These numbers include admissions for wounds and injuries of every character received during action, whether trivial in extent, or terminating fatally immediately after being brought from the field. A few cases of sick from the camps were admitted in each hospital, but are not included in the above figures.

The wounded were disposed of as follows:

Returned to Regiment	162
Furloughed	356
Died	80
Transferred to General Field Hospital, Chattanooga,	135
Total	733

It will be noticed in the examination of the above figures that a large proportion was returned to their respective regiments. This was especially the case with the third division, the troops of which were in camp, at the time, in Bridgeport, thirty miles below. Many of these men were not able to report for duty at the time of their discharge from the hospital, but being generally slight flesh wounds of the upper extremities, or minor amputations, it was deemed advisable to relieve the somewhat crowded condition of the tents, by sending them to their regiments, where all needful care could be given, and where furloughs could be readily obtained in cases of protracted disability.

Lists of the wounded remaining in Chattanooga are herein enclosed. They are without descriptive rolls, with the exception of the wounded of the Second Division. I would respectfully recommend that the Surgeon-in-Chief of the Third and Fourth Divisions be instructed to secure them for the men thus transferred, and forward to the surgeon in charge, general field hospital, Chattanooga.

The general results of the cases treated in these hospitals, although under somewhat unfavorable conditions, may be regarded as quite favorable, up to the 25th day after the battle. The wounded were unusually exempt from adynamic diseases of every character. Not a single case of hospital gangrene came under my observation. Sloughing occurred in two cases of amputation of lower extremities: one of the thigh and one of amputation below the knee, but were attributable entirely to faulty formation of flaps. The condition of the patients, and the subsequent results, were conclusive proofs, in my opinion, that it was not dependent on the putrifactive agencies concerned in the production of that disease. In each case spontaneous arrest of sloughing occurred, followed by healthy granulations without the adoption of any specific treatment. In case of mortification or local gangrene of the leg, requiring secondary amputation of the thigh, it was ascertained that in addition to injury of the joint there had been partial destruction of the continuity of the popliteal nerve, the vein severed, and the artery diseased and filled with coagula.

Two cases of traumatic erysipelas were reported. One of the hand, evidently caused by tight bandaging in attempting to control secondary hemorrhage from the deep palmar arch, and which readily yielded to topical applications after the bleeding vessel had been secured by ligature. The other occurred in a soldier, whose constitutional condition was somewhat chacectic, suffering from a gunshot wound of the knee joint.

The skin had an erysipeloid appearance, with less definite

margins of extension than commonly exist in that disease; extensive diffusion of ichorous pus was found to exist in the subjacent cellular tissues, mostly in the form of sinuses, and purulent infiltration, with diseased action in and about the joint. May not the integumentary complication have been derived from extension of the morbid processes immediately beneath, resulting from a somewhat diffuse burrowing of purulent products from the seat of injury?

The subsequent history of the patient, and an absence of the tendency to spread rapidly to healthy tissues, led me to doubt its identity with that form of erysipelas which originates from specific contagion or blood poison.

The number of deaths from pyema could not be ascertained. Several fatal cases came under my observation, in which there had evidently been extensive inflammation and purulent infiltration of the lungs, and yet so masked by the absence of symptomatic phenomena, occupying the sthenic grades of pneumonia, that the real seat of trouble had not attracted especial attention. The cases of amputation terminating fatally, and reported in tabular form, annexed, progressed favorably in every respect for eight or ten days after the operation. Healthy granulations appeared in the wounds, and the irritative fevers were not excessive. The pyemic condition was manifested by increased frequency and feebleness of pulse, rigors, bilious vomitings, dry tongue, and in the local stages exhaustive sweats, and sallow condition of the skin.

The results of gunshot wounds of the knee-joint, as exhibited in the tabular report of the cases occurring in these hospitals, are not very encouraging for future attempts to save the limb. In each of the cases reported as favorable on the 25th day, suppuration had occurred about the joint, and one had required free incisions for the escape of purulent matter. The surgeon reporting them, whose judgment is entitled to high consideration, bases his opinion on the fact that the constitutional condition of the patient was good, and

that there had been inflammatory action only to a very limited extent.

The general results, however, of the cases brought to my notice after the late battle, are adverse to any attempt to save the limb in all wounds involving the joint.

Exsections were performed in all the hospitals in cases of fracture of the bones of the arm and forearm, and in a few wounds of the leg. The results in general were in the highest degree satisfactory, and confirmatory of a principle already well established in conservative surgery.

In several instances my attention has been directed by operators to their need of proper surgical instruments for resections and exsections. Those mostly needed are chain-saws, knife-shaped, or Larrey's straight saw, strong bone-forceps, and heavy forceps for holding extremity of the bones whilst being sawn.

If practicable, it would be desirable to have the Surgeon-in-Chief of each Division furnished with an exsection case complete, for the use of the operators in the Division hospitals, after an engagement with the enemy.

I have the honor to be, very respectfully,
Your obedient servant,
E. O. F. ROLER,
Surgeon 55th Illinois Volunteers.
Acting Medical Inspector 15th A. C.

To Col. R. N. BARR,
Surg.-Gen. State of Ohio.

Table of Amputations, with results to 25th day, Field Hospital, 2d, 3d, and 4th Divisions, 15th A. C. Battle Mission Ridge, Nov. 24th and 25th, 1863.

Injuries.	Total number of Amputations.	Primary Amputations.	Secondary Amputations.	Deaths from Primary Amputations.	Deaths from Secondary Amputations.
Leg	7	6	1	1	
Thigh	21	17	4	3	2
Arm and Forearm	21	19	2		1
Totals	49	42	7	4	3

Table of Knee-Joint Injuries, with results to 25th day.

Knee Joint.	Total number of cases.	Amputated Primarily.	Amputated Secondarily.	Treated without Amputation.	Deaths from Primary Amputations.	Deaths from Secondary Amputations.	Deaths of cases not Amputated.	No. favorable for recovery without loss of leg.
Totals	16	7	2	7	0	0	1	2

Cases of Secondary Hemorrhage of all kinds 16

Report by J. T. Woods, Surg. 99th Ohio Volunteers.

Headquarters 99th O. V. I.,
Cleveland, Tenn., *March 21st*, 1864.

Prof. John Dawson, Editor Ohio State Med. Journal:

Sir,—While on duty at General Hospital No. 1, Chattanooga, a number of interesting cases came under my observation, and of which I kept notes; which notes, together with some commonplace remarks of my own, constituted a report to A. J. Phelps, Surg. U. S. V., and Med. Dir. of my corps. Before forwarding the paper I had a man to copy the *remarks* for my own satisfaction and future use. After they were copied, it occurred that *perhaps*—and I say perhaps, implying all the word can mean—you might

think them worth publication. I know there is nothing in them especially novel, but they have the merit of origination amid the the stern duties and arduous labors of a battle.

Analysis of 55 cases of gun-shot injuries of the lungs, occurring at the battle of Chichamagua, affords results which I have tabulated for convenience of reference, designating with some degree of accuracy the locality of the wound, by imagining the lung divided into "thirds."

	Upper Third.	Middle Third.	Lower Third.	Lived.	Died.
Right Lung	6	.....	.....	2	4
	.....	5	.....	5	.....
	.....	.....	3	3	.....
Left Lung	12	.....	.....	9	3
	.....	9	.....	5	4
	.....	.....	7	4	3
Both Lungs	.....	.....	.....	.....	2
Part of Lobe unknown—Right, 5; Left, 6	.....	.....	.....	1	10
	55			55	

The injuries in the above cases were inflicted by Minnie balls, on the 19th and 20th of September, and as most of them were received in hospital from the rebel lines, after the lapse of eight to ten days, the early symptoms could only be ascertained by inquiry of the patients. Through this means I arrived at the general facts. The shock of injury to the physical system was only moderate, and reaction occurred promptly, but the force of the mental shock was more intense, always impressing the patient with the idea that he was killed; that hemorrhage from the parietes was believed by the patient to have been often profuse, but hæmoptysis, neither universal, marked or persistent, often having as strongly all these characteristics where the parietes only had been injured, or even where, without wound, a severe shock or jar only had been communicated. Respiration, through the thoracic opening, exhibiting the mucus characteristic, in cases where the ball could not have

failed to perforate the lung tissue, was not a common symptom, but occurred with most certainty when the perforation was in the upper part, and this occurrence was accompanied by much increased difficulty of respiration—a symptom that was astonishingly slight in those cases in which the above mentioned mechanical difficulty occurred, or pneumonia supervened. The most reliable general principles of diagnosis, to my judgment, is the purely mechanical one, and is based on the facts that the lung always fills the thoracic cavity, and that a Minnie ball is not likely to be deflected by the thoracic wall; hence, a straight line from point of entrance to point of exit decides the tissues injured, confirmed beyond doubt if by exploration the thoracic wall is found to be opened.

I have been astonished at the non-occurrence of pleuritis, the wounds being ragged, injuring twice both thoracic and pulmonary pleura, with spiculæ of ribs, sometimes thrown inwards to irritate the parts and aid in exciting this wall, but in these cases the symptoms of pleuritis were both seldom and mild. The great danger is pneumonia, the treatment of which is not only delicate and difficult, but likely to prove unfortunate. No occasion was found for Guthrie's heroic phlebotomy, or for active purgatives. No indication for antimony, or the impairing the blood's plasticity, presented itself.

The only plausible hope for successful treatment lies in the *early* application of remedies, and in this matter lies an error fraught with fatality. The patients are mingled with others in crowds, the air is often impure, and this with depressed and circumscribed respiratory power, adds fuel to the difficulty; the examinations made not sufficiently frequent and minute to detect the earliest manifestations of the disease while within the control of medication. Anodynes, sufficient to allay the intense suffering, is dictated both by philosophy and humanity, and upon the detection of pneumonia in its early stages. The administration of *tinct. veratrum viride*, sufficient to produce its sedative effect, and thus arrest, by crush-

ing out the disease at once, has afforded most satisfactory results. The impression is made suddenly, at the time selected by the surgeons, and while it throws a barrier in the way of the inflammatory process, it leaves no traces of a destructive process of a permanent constitutional character. Great attention is required to the diet, which should at first be light, and made more nourishing as diseased action taxes more severely the constitutional energies.

FOOT AND ANKLE INJURIES.

The early history of these cases was exceedingly flattering, and afforded ample reason to warrant an effort to save the limb in injuries of this class; but at a later date the incapability of nature's power of reparation became apparent.

In November, the transferrence to Northern hospitals placed them all beyond my observation, except cases No. ——, and of which notes date to December 10th. These cases, neither the most favorable, nor most unfavorable, of those represented, may be taken as a type of the whole, and the unwarrantableness of conservatism (?) in these cases is most apparent, every indication presented by them warranting the conclusion that after much of suffering and great exhaustion, their choice is still between death and loss of the foot.

In cases of severe gunshot injury of the tarsus, the result can hardly be less decided. The case of "Chew" presented favorable prospects, but without the greatest care and skill the foot will be distorted and at best retained with a long cicatric that must ever interfere with the wearing of his boot, and this gained by an exposure much greater than from the amputation of Chofort, which affords a useful member, should the most hopeful views be realized.

Dec. 21st. Amputation must follow. My convictions are most decided that in injuries by the conical musket-ball, of the tarsus and ankle, amputations above the joint, or by some of the various recommended operations through it, such modification as the peculiar case may require, is the only correct practice.

GUNSHOT—KNEE-JOINT INJURIES.

Number of cases, 38; died, 30; recovered, 8.

The knee-joint wounds of the battle of Chickamauga, that were treated at General Hospital No. 1, in Chattanooga, under the post directorship of J. Moses, Surg. U. S. V., were made the subjects for testing, by experiment, the accuracy of a principle in military surgery, that I had supposed long since settled. 'Tis true most of the cases were not in our hands till the period for primary amputation had passed, but it is to be added that in no instance did the early secondary amputation interfere with the rigorous exactitude of the experiment.

The treatment universally pursued was position, incisions, and cooling applications, usually by irrigation. So mild a substitute for amputation that the utmost degree of interest centered in these cases, and favorable results anxiously hoped for.

A great number of these presented, for some time, most encouraging appearances, but under the intense inflammatory action which supervened, and the consequent suppuration, destruction of cartilege and caries of bone, the vital energies finally succumb.

But amid these ill-fated sufferers, a few, in which the joint must have been traversed, strangely passed on to recovery, without a dangerous or even a severe symptom, directed observation toward them especially, it being presumed that results so widely at variance must have in the cause an essential difference, and that this difference in the character of the injury would be of great practical importance in diagnosis.

Repeated dissections revealed uniformly the fracture of articular surfaces of the joint, in greater or less extent, the pathological condition of the parts considered in relation with their anatomical structure, seemed to point to a uniform result from this condition or character of injury, and reasoning by exclusion that in cases such as are referred to. The fracture is only traversed by the ball, no fracture being inflicted, or at most simply a grooving or abrasion of the articular cartileges occurring.

This idea seemed to find confirmation in the fact that in these

cases the ball uniformly passed antero-posteriorly, or latterally in certain directions at the level of the joint, thus affording the first qualification of this occurrence. Passing antero-posteriorly the nearly level articular surface of the tibia, the large size of the inter-condyloid notch would, especially if the knee were partially bent, render the passing of a ball without violently inpinging on bony structure quite easy of occurrence; and similar considerations of anatomy and varied position seemed to afford a similar explanation to the harmlessness of the balls—cases where their course was latterally through the anterior third of the joint.

These theoretic views it was found quite easy to demonstrate upon the dead subjects, making a slit in the ligamentum patellæ, below the patellæ itself, passing in a narrow bladed knife to clear away the soft parts, and slightly flexing the leg upon the thigh, I was enabled to introduce through the joint into the popliteal space a round piece of wood one-third greater in diameter than a minnie ball, and by flexing the leg to a right angle with the thigh, the space between the bones of the joint on the anterior aspect was found to be quite sufficient for the passage of a minnie ball laterally, and through the tense skin the opening would be so small that when the leg was straightened it would appear to have entered immediately below the inner condyle.

Thus it becomes apparent that these cases should be studied, viewing the limb as nearly as can be ascertained in the position it was in when the injury was received, the opening through the skin being no certain index of the real track of the ball. The patellæ, seeming often to have been of necessity perforated, when by moving the limb to the position at the moment of injury the skin would be found to glide off it entirely and the bone be intact.

The cases 37 and 38 are introduced here for the purpose of calling attention to the ease with which error of diagnosis may occur in studying the course and effect of a minnie ball near a large joint, highly irregular in conformation. Both these cases were regarded as injuries of the joint, by many surgeons, and they have been so reported to Washington. But in No. 37 post mortem re-

vealed only a fracture above the condyles and the joint secondarily involved. Case 38, like 37, highly interesting because of the overlapping of the bones and protrusion of the upper fragment, is still living January 4, 1864, without prospect of recovery, but no involvement of the joint has occurred, and the history is such that no one conjectures that the joint has ever been injured, the case being one of oblique fractures of the femur.

The following conclusions seem well founded:

1. Every recent case should be carefully but thoroughly examined, the finger being used as the probe.

2. With a clear knowledge of the anatomy of the joint, much aid is to be derived from studying the course of the ball with the limb in the position in which it was placed at the time of injury.

3. If the ball has passed through the joint, so as to leave the cartilege and bony structures intact, or with slight scratch or seam, amputation is not advisable.

4. If bony structure is involved, fracture and comminution produced, the only warrantable procedure is amputation, the attempt to save the limb no less than a wanton robbing of the unfortunate sufferer of the only chance for life, by operative procedure.

INJURIES OF THE FEMUR.

Cases, 47; died, 29; lived, 18.

These limbs were placed in a position most comfortable to the patient, for some time when suppuration having at least become much reduced in quantity, and the reparation callus was being thrown out. They were (usually under chloroform) placed in some form of splint, with moderate extension and counter extension. My observation led me to conclude that the double inclined plane is inferior, save where the fracture is within a short distance of the trochanter, and the tilting of the upper fragment requires the adaptation of the lower fragment to it, by changing the position of the leg from the straight line, and possibly when the fracture is so low down that the condyles are drawn backward and downward.

Smith's anterior splint failed to meet my expectations in every particular. If it be applied as Dr. Smith directs the parts are hidden from view; sacculation of pus occurs, drainage is imperfect, and filth accumulates in the bandages.

If the leg be simply suspended in the wire frame, sufficient quietude of the parts is not maintained, and the extension is neither sufficient nor reliable, and if the fracture be in the upper third the motions of the body produces movement in its fractured extremities, just what a splint is designed to prevent.

The splint of Desault, modified various ways to suit particular cases, can be so applied as to secure the desired immobility, extension, drainage, exposure and cleanliness.

My impression, from observing these cases leads me to conclusions briefly summed up thus:

Amputatien is almost never warrantable, but the prospect of success warrants the effort to save the life with the limb.

The proper dressing of a limb is really of great importance and very much underrated.

That "supporting" diet in the early stages of these injuries is overestimated.

That an object of the first importance is to secure abundance of fresh air, cleanliness and perfect drainage.

A very great error consists in excessive bandaging. A limb is better off without bandaging or splints until reparation has commenced.

The covering of gunshot wounds with lint, either picked or patent, is objectionable; the pus drying at the edges glues it fast, and thus the pus is not allowed to drain away.

The best splint for fractures of trochanter major, or immediately above the condyles, is some form of double-inclined plane; and for fractures in middle of the femur some modification of the Desault splint.

Report of a case of Encephaloid or Fungus Hamatodes, By S. B. DAVIS, M.D., Leavenworth City, Kansas, May 31st, 1864.

About the 20th day of April last, George W. Transue, a lad of sixteen, was brought to this city from Marysville, Kansas, for treatment, and passed successively through the hands of homœopaths, uropaths, cancer doctors, &c., until the 23d inst., when I was called to see the case, with Dr. S. F. Few, of the U. S. A. General Hospital. We found him lying on his back, his right knee bent at an obtuse angle and supported beneath by pillows; his body and limbs greatly emaciated, his pulse frequent and feeble, and his countenance pale and expressive of long suffering. A pale, firm and elastic tumor, larger than a man's head, apparently involved the whole knee, but was most prominent on its inner aspect. It was irregularly globular in shape, somewhat painful and tender on pressure, and had a deep seated pulsation, quite audible but scarcely perceptible to the hand; enlarged veins ramified beneath the skin. The foot and leg below the tumor were œdematous and of diminished temperature. In tracing the femur from above downwards, it appeared to terminate abruptly about four inches above the patella. The head of the tibia could not be felt through the swollen and diseased structures. There was evidently great destruction of bone, and probably disorganization of the joint. The superincumbent integuments, the day before our visit, had given way at a point a little within the patella, followed by profuse hemorrhage. The application of a compress arrested the bleeding, but the following morning his medical attendant (?) who had expressed the opinion that the tumor was an enormous abcess, plunged a lancet into it and drew off forty-eight ounces of *blood*. The patient fainted before *matter* made its appearance, and the doctor was compelled reluctantly to apply a compress and bandage.

The history of the case, as obtained from the family, threw but ittle light upon the character of the tumor, and aided but little

in the diagnosis. They stated that about Christmas last, soon after returning with a train from Denver, he was seized with severe pain in or about the knee, which their family physician regarded as of a rheumatic character and treated accordingly; that soon the limb, a few inches above the joint, began to swell, that the swelling gradually and slowly increased, progressing downwards, for two or three months, when it grew more rapidly, and that at times there was throbbing and severe pain present, and at other times these were trifling or entirely absent.

Drs. Jones and Sinks, of this city, were called in consultation, but neither of them were satisfied as to the character of the tumor. Was it osteo, aneurismal or malignant? We were inclined to the former opinion. All agreed, however, that amputation alone offered a chance for the patient's life. His constant confinement to one position, without hope of change, the rapid growth of the tumor, accompanied with pain and uneasiness, and his mental anxiety, were taxing his vital powers beyond endurance; but above all the liability to fatal hemorrhage at any hour, we considered as justifying surgical interference, even with a remote hope of saving life. The certainty of death at no distant period without an operation, the chance, though small, of saving life by an operation, together with the danger of his dying under the knife, were candidly and feelingly stated to the patient and his friends. They unhesitatingly decided in favor of amputation. An early hour the following morning was designated for the operation, and strict directions left for proper care and watchfulness through the night. Assisted by Drs. Few, Jones and Parks, and hospital stewards Kinnear and Redman, I amputated at the time apointed, adopting the circular operation as allowing the greatest economy of integument, without including in the covering of the stump, the deeper structures, which were more likely to be found diseased. The bone was severed at the junction of its upper and middle thirds. The loss of blood was trifling. Chloroform was given with

happy effect. When returned to his bed the patient was comfortable and cheerful, his pulse much reduced in frequency and increased in strength. Milk punch was given freely during the day, and when I called, late in the evening, his condition was such as to give me hopes of a favorable issue, but in the night he was attacked with dyspnœa, and on being raised from his pillows, with fatal syncope. He died thirteen hours after the operation.

Appearances on Dissection.—On laying open the tumor, the cut surfaces presented innumerable cavities of various dimensions, filled with clotted blood and medullary matter, with here and there masses of gelatinous matter. Osseous fragments were interspersed throughout the greater part of the tumor. On the inner aspect of the knee was a mass of encephaloid matter about half the size of a cocoa nut, and of the consistence and color of the cineritious portion of the brain. The balance of the tumor was principally hæmatoid. The popliteal vessels and nerves were found to have maintained their integrity. About four inches of the femur was entirely destroyed, including the condyles, leaving but a thin shell beneath the articular cartilage. The articular surfaces were unaffected, as were the ligaments of the joint and bones of the leg. The medullary canal and spongy structure of the femur were involved to half way within its middle third. At the point of amputation the bone and soft structures had a healthy appearance.

American and Foreign Intelligence.

Clinical Lecture on Sciatica. By HENRY WM. FULLER, M D., CANTAB., Physician to St. George's Hospital.

GENTLEMEN: In the whole range of our medical vocabulary there are no two terms which are applied more loosely, or made to embrace so many different maladies, as those of "rheumatism" and "sciatica." In a former lecture I showed you how various are the forms of disease usually comprehended under the title of rheumatism, and how opposite the treatment required in the different varieties. To-day I propose to bring under your notice some cases which have occurred in the wards of the hospital, in illustration of several of the varieties of disease which are often classed under the title of sciatica. You will thus be reminded by actual examples how necessary it is to determine the precise nature of the malady you have to encounter before you decide upon a plan of treatment, and how fruitless in many cases must be your efforts to afford relief if you regard all pain down the course of the sciatic nerve as evidence of the existence of true sciatica, or, in other words, of pain consequent on irritation of the sciatic nerve unconnected with general derangement or with local mischief elsewhere.

The first case which I will take as a text for my remarks is that of W. G——, a porter, aged fifty-one, who was admitted into Fuller ward on the 5th of May. Two weeks previous to his admission into the hospital the man had been attacked with wandering pains in various parts of the body, and especially with acute pain down the course of the sciatic nerve in both legs. The pain extended from the hip to the ankle; was most severe when he was hot, in bed; and was felt almost as acutely when he was perfectly still as when he made an attempt to move. Embrocations and various internal remedies had been employed without any relief to his sufferings. On admission, his complexion was pale and sallow; the skin was cool; the pulse 76, of good strength and regular; the urine high colored and loaded with lithates; the tongue much furred; and the bowels were regular. Scarcely any part of his body was quite free from pain, but his principal complaint was of acute pain in the course of both sciatic nerves, accompanied by

starting of the limbs. From the commencement of his attack he had experienced fugitive pains in the joints, but there had not been articular redness or swelling.

Here, then, was a case of sciatica connected with the existence of a rheumatic diathesis. The history of the attack and every symptom observed during its progress pointed to this conclusion. There were wandering pains in the limbs and occasional pains in many of the joints; there was furring of the tongue, and there was loading of the urine. The pain in the sciatic nerve was not confined to one side of the body, as it is when the pain is referable to renal irritation, or to any local cause of mischief, but it existed equally on both sides, and extended down the whole course of the nerve. It was evidently due to some cause pervading the entire system, producing disturbance of the excretions, and occasioning pain in various parts of the body. Regarding this cause as of rheumatic origin, I decided to treat it as an ordinary case of subacute rheumatism. If my view were correct, it would be useless to employ blisters, fomentations, or embrocations down the course of the affected nerves, as the source of their irritation was not local but general, and therefore to be met by measures directed against the morbid state of the blood. Accordingly, I limited the patient's diet to beef-tea, and prescribed ten grains of colocynth-and-calomel pill to be taken immediately; and an ounce and a half of the guaiacum mixture every six hours, containing two scruples of bicarbonate of potash and six grains of iodide of potassium. The result was just what I had anticipated. By the 11th the urine had become clear and only faintly acid; the bowels were acting freely, and the alvine dejections were healthy; the tongue had nearly cleaned, and the sciatic pains had greatly decreased. Fish, therefore, was ordered for his dinner in addition to the beef-tea, and the mixture was continued as before. On the 15th, as his progress was satisfactory, and his tongue was clean, and the urine continued clear, he was allowed the ordinary meat diet of the hospital, and on the 18th he returned home quite free from pain.

Let me contrast with this case that of S. C——, aged fifty, who was admitted into the Crayle ward on the 4th of April. This woman had not felt well since the cessation of her monthly periods twelve months previously, and for about a month before her admission she had suffered from sciatica of the left side, extending from the hip down to the ankle. The pain was felt sometimes in the iliac region and down the front of the thigh and leg, as well as in the hip and down the back of the limb, but it was more constant behind than in front. It was not materially aggravated by exercise, was always worse at night, and was so acute as to prevent her sleeping. The want of rest and long-continued suffering had rendered her weak and nervous. She had undergone a variety of treatment without relief. On admission, she had a worn look, but her general aspect was healthy; her skin was warm and moist; the pulse 120, weak; the urine clear and pale; the tongue coated

and yellow; the appetite good; the bowels were reported regular; and the catamenia had been absent twelve months. She suffered much from cold feet. Now you will observe that this woman did not present symptoms of true rheumatism: her aspect was healthy, the pain stationary, the urine clear and pale; and the only trace of disordered secretion was afforded by the coating of the tongue, which disappeared as soon as the bowels had been unloaded by means of ten grains of colocynth-and-calomel pill. But there was abundant evidence of disturbance of the nervous system, and of that irregularity of the circulation which is often observed coincidently with it; and it was more than probable that the derangement of her system had originated in the sudden cessation of the monthly discharge. Be this as it may, it was obviously useless to treat the case as one of rheumatism; the symptoms pointed rather to the necessity of tonics to uphold the patient's strength, and for medicines addressed to the relief of nervous irritability. Accordingly, I prescribed the cinchona draught, with the addition of five grains of quinine, ten minims of dilute sulphuric acid, and six minims of tincture of aconite, to be taken three times a day; and ordered a generous diet and a pint of porter daily. The result was even more satisfactory than I had anticipated. The pain subsided in a few days, and she left the hospital in a fortnight quite free from sciatica.

A similar case was under your observation some time since in Queen's ward, in the person of G. K——, a married woman, aged fifty-eight, who was admitted on the 5th of May. She had suffered for four months from pain, sometimes in the back, but more frequently in the front of the left thigh and leg, extending from the hip down to the foot. The pain was not materially aggravated by motion, but was decidedly worse at night. She was a stout person, of lax fibre, and for some time had complained of debility. Her complexion was healthy; her skin warm, not hot; the tongue clean; the urine clear and pale; the pulse 108, weak; her appetite good. The bowels were costive, and the catamenia had been absent since she had attained the age of thirty-eight. She had never suffered from gout or rheumatism, and had not experienced pain in any part of the body except the left thigh and leg. Having regard to the general appearance and history of the patient, and to the absence of all symptoms of true rheumatism and of any local cause irritation, I was led to regard the case as one of those to which, for lack of a better term, we apply the title "neuralgic." In some of these cases quinine or bark and aconite prove extremely serviceable; in others which are characterized by pallor and nervous exhaustion, rather than by mere irritability of the nervous system, the use of iron is markedly beneficial; whilst a third class of cases, in which the general health appears tolerably good, and irritability of the nervous system is the more prominent feature, sedatives, whether given internally or applied externally, or injected directly into the cellular tissue of the affected limb, appear

to be more commonly productive of relief. In the instance before us, the principal indications for treatment were the costive state of the patient's bowels and the general debility. Accordingly I gave her the ordinary meat diet of the hospital, with a pint of porter daily; administered a large turpentine enema, with the view of making sure of a thorough emptying of the lower bowel; and prescribed the cinchona draught every six hours, with the addition of six minims of tincture of aconite. By the 11th the pain had much diminished; by the 15th it had entirely ceased; and on the 19th she left the hospital, the only other remedies which had been prescribed being an occasional pill to regulate the action of the bowels.

The case of J. M——, who was admitted into the Hope ward, on the 16th of October, is a good example of the relief afforded by the injection of morphia into the cellular tissue. This man, a stableman by occupation, had suffered from sciatica of the right side above three months, and had undergone treatment without relief. He described the pain as just as severe when he was motionless as when he attempted to move. He had never had rheumatism or gout, and could not account for the accession of the symptoms. On admission his aspect was healthy, the skin natural, tongue clean, urine pale and clear, pulse 96 and of fair strength, and the bowels were reported regular. His appetite was good. A more complete description of a normal condition of the body can scarcely be imagined. No evidence of a gouty habit was to be detected here; no history of rheumatism could be elicited. There was no mischief about the hip; no renal irritation; no loading of the bowels; no obvious cause of local irritation. What, then, was to be done for the man's relief? Were there no indications for treatment? Assuredly there was one, in itself important, and which in the absence of any contraindication, was necessarily paramount. The man had suffered severely from pain for the space of three months, and that pain had to be relieved. In short, sedatives were called for; and the question to be decided was as to the form in which they should be administered. I began by ordering fifteen grains of Dover's powder each night, and a powder containing half a drachm of guaiacum and the same quantity of sulphur twice a day, with a view to regulate the action of the bowels. At the same time, the patient was permitted to have the ordinary meat diet of the hospital, and a pint of porter daily. He continued this course until the 22d, when the pain was undiminished, and it became obvious that if any good was to be effected by sedatives they must be employed in larger quantity, and applied locally. In many of these instances you have seen me use, with great success, a lotion composed of two drachms of the extract of belladonna, three ounces of laudanum, three ounces of glycerine, and two ounces of water. The painful limb is encased in linen steeped in this lotion, and covered with oiled silk or gutta percha. A continual fomentation is thus kept up, the skin readily absorbs the liquid in contact with it, and the glycerine renders it unneces

sary to renew the application above once in twenty-four hours. But in the case of J. M——, the indications for the use of a sedative were so decided that I determined to apply it by means of subcutaneous injection. Its action when thus administered is more immediate and more certain; so much so that if it is capable of affording relief, its curative effect is often displayed in the course of a few hours—a circumstance gratifying no less to the patient than to his medical attendant. Accordingly, I omitted the medicines which the patient had been taking, and ordered half a grain of morphia to be injected at bedtime into the cellular tissue of the left leg. This was readily accomplished by means of a small glass syringe fitted with a fine perforated needle. The effect was immediate. The pain ceased, the patient went to sleep, and on the following day awoke quite well. To make sure that the pain was thoroughly subdued—not merely lulled—we kept him in the hospital until the 31st, when, as he still remained perfectly well, he was permitted to return home.

The result in this case was so immediate and so striking, that you may perhaps be inclined to regard it as exceptional. In some respects it was so. Rarely does one subcutaneous injection of morphia so thoroughly subdue the pain as to render the second and third injection unnecessary; but when this methed of employing sedatives is had recourse to in appropriate cases, its beneficial effects are strikingly displayed within a very short time. Oftentimes the few hours succeeding the injection are the first hours of sleep which the patient has enjoyed for some weeks; and although a second, a third, or even a fourth injection may be added to complete the cure, each succeeding operation exerts a distinctly curative action, and leaves less of pain to get rid of. In this, however, as in other instances, the successful issue of the treatment depends upon its adaptation to the exigencies of the case. In sciatica referable to local mischief or to gout, rheumatism, or other distempered conditions of the blood, the use of morphia or other sedatives can only be palliative, not curative. In such cases the cause of irritation must be got rid of by appropriate remedies before the effect of morphia in checking the continuance of the nervous irritation will be manifested. But when the disease consists essentiully of irritation of the nerve, and is independent of local disease and of general systemic derangement, the result of the administration of sedatives is most satisfactory. You may fairly ask me how are you to diagnose the cause to which I refer. The question is more easily asked than answered. In truth, the diagnosis of these cases is most difficult, and is only to be effected by a careful consideration of the patient's history and of the symptoms which are absent as well as of those that are present. By a carefully conducted system of exclusion it is often possible to arrive pretty nearly at a correct result. If there is no history either of gout or rheumatism, and no loading of the urine as if a rheumatic or gouty influence were at work in the system; if the

patient has not recently suffered from syphilis or gonorrhœa, so that the pain is probably not induced by the agency of those morbid influences; if the tongue is clean and the bowels are regular, so that there is no reason to suspect any loading of the bowels, or the existence of conditions in the primæ viæ exciting sympathetic irritation; if there is an absence of symptoms of renal irritation, hip disease, and of local organic disease of the nerve; and if at the same time the patient is excitable, and has been subjected to overwork or to other causes of nervous exhaustion—the probability is that the sciatic pain will prove to be a true neuralgia, and will disappear under the influence of quinine and opium. Some clue to this fact may be derived from the character of the pain, though at the best this forms an uncertain indication. Cases of sciatica, if viewed solely in relation to the character of the pain, may be divided roughly into three classes: in the first there is no pain when the patient is at rest, but pain ensues when he attempts to move; in the second there is pain at all times, but its severity is increased on motion; in the third there is also pain at all times, and the pain is greatly aggravated in paroxysms which usually occur towards night, but it is not increased on motion. The neuralgic cases in which sedatives are of service belong to one of the last two classes—usually to the last; and although I do not promise that you will be successful in affording immediate relief to all on whom you make the attempt, I do not hesitate to insure you that if you will restrict the use of sedatives—whether administered by the mouth, by external application, or by the subcutaneous injection—to cases in which the pain is more or less constant, aggravated in paroxysms, and not materially increased on motion, and will previously take the trouble to assure yourselves of the absence of any local or humoral cause of sciatica, you will rarely fail to find sedatives serviceable in the subjugation of what would otherwise prove an obstinate intractable pain. Blisters, issues, and other local irritants, and derivatives, which are often employed in these cases under the mistaken idea of the pain being referable to local inflammation, are useless—nay, positively mischievous. They irritate and exhaust the patient, and depress him mentally as well as physically. I have often been called in private practice, to patients who for many weeks have been subjected to a succession of these torturing applications without the slightest relief, and in whom the free use of opium and a few full doses of quinine have at once subdued the patient's sufferings. In a modified degree you have often witnessed the same fact in patients under my care in the wards of this hospital.

Time will not permit me to do more than allude very cursorily to many instances which have come before you in the hospital in which sciatica has been connected with gout or gonorrhœa. The case of W. H———, aged fifty-nine, who was admitted into the Hope ward on the 8th of February, was an excellent example of the agency of gout in exciting the disease, and that of B. R———,

aged twenty-seven, who was admitted into Cambridge ward on the 22d of October, of the influence of gonorrhœa in producing the same result. But I would take the opportunity of urging upon you again, the necessity of endeavoring to discover the exciting cause of the disease before you decide upon a plan of treatment. If you fail to ascertain the source of the irritation which is causing the sciatic pain, you must necessarily prescribe in the dark; your remedies will not be suited to the exigencies of the case, and you will seldom succeed in relieving your patient. An apt illustration of this fact is afforded by the two cases just referred to. In the former, a history of gout was elicited at my first interview with the patient, and accordingly I prescribed colchicum with antacids and gentle tonics. The remedies were in strict relation to the nature of the disease, and the consequence was that the pain was relieved within a few days, and the patient left the hospital at the expiration of three weeks. In the latter I was at a loss to account for the symptons, for the patient was young, his aspect was healthy, there was no apparent local mischief, and no history or present evidence of general derangement of the system. Under these circumstances I suspected a venereal taint, and should have treated the case accordingly, but that the man firmly denied having ever suffered either from syphilis or gonorrhœa. I was, therefore, induced to try the effect of active purgatives, and afterwards of opiates in full doses. But the remedies were not suited to the case, and therefore were given in vain. After more than a fortnight's treatment the sciatica remained unrelieved. Shortly, however, he began to complain of the occurrence of pain and tenderness on his shin-bones. My suspicions as to the venereal origin of his attack were thus confirmed, and I at once prescribed ten grains of iodide of potassium, with fifteen grains of acetate of potash, and an ounce and a half of the cinchona draught, to be taken three times a day. The result was a speedy cessation of the symptoms. Within a week the severity of the pain had greatly diminished, and at the expiration of a fortnight the patient left the hospital quite free from sciatica.

In another class of cases sciatica is connected with sympathetic irritation, excited by a long continued loading of the bowels, or by the presence of crude irritating secretions in the primæ viæ. In many of these instances the patients have never suffered from gout or rheumatism, and there is an absence of symptoms indicative of hip disease, of renal irritation, or of general nervous irritation, as in the cases last mentioned. The skin is cool, the complexion is seldom pallid as in cases of rheumatism, the urine is usually clear and often pale, there is no pain in, or retraction of the testicle, and no pain in the course of the ureter. Further, the pain is usually felt down the course of both sciatic nerves, instead of being confined to one side, the tongue is furred, and the bowels are costive. In this class of cases the indications for treatment are obvious enough. It behooves us to act fully on the bowels, so

as to rid them of all irritating secretions, and of the hardened feces which are often impacted in them. But ordinary purgatives are of little avail for this purpose. Experience proves that colocynth pills and senna draughts and saline aperients will induce free watery evacuations from the primæ viæ, but will fail in removing old accumulations in the bowels, and in relieving the patient's suffering. The means by which this end must be attained are enemata of a stimulating character, opium followed by full doses of castor oil or croton oil, and the continued use of guaiacum. No purgative is more certain in its operation than guaiacum, and none can be more thoroughly relied upon for affording relief. Combined with sulphur in equal proportions, in the form of powder, it proves a never-failing aperient if given in half drachm doses twice or three times daily; and if administered only in appropriate cases, it proves one of our most trustworthy allies. You have seen me employ it so often in this hospital that it is scarcely necessary to direct your attention to it more particularly, but I will even detain you a few minutes whilst I recall the symptoms of J. S———, aged fifty, who was admitted into the Fuller ward on the 5th of May. This man was attacked with sciatica of both sides six months before admission, and although the pain had varied in intensity from time to time, it had never ceased since the commencement of the attack. He described the pain as of a dull aching or gnawing character, slightly aggravated by motion. It did not increase in severity at night, and it had not been accompanied by pain in any other part of the body. He had never suffered from gout or rheumatism, and his general health was good; his aspect was healthy; tongue coated; bowels reported open, though usually costive; urine clear and acid; pulse 76, soft. Here, then, was a case in which all the causes of sciatic pain which we have hitherto considered appeared to be absent. There were no symptoms of local mischief in the spinal cord, or in the sciatic nerves, or of hip disease, or of renal irritation; no evidence of the existence of gout or rheumatism, or venerial taint; no mark of general nervous irritability, requiring sedatives for its subjugation. The patient was not a weakly or a nervous man, and his pulse was steady and quiet. To what, then, was the pain attributable? What indications were there for treatment? One, and one only, could be discovered. His tongue was coated, and his bowels were usually costive. True, they had acted on the morning of his admission, but when acrid or hardened feces accumulate in the lower bowels, they do not necessarily obstruct the passage so far as to prevent even a daily action of the bowels. Nay, rather they are apt to excite local irritation, and a frequent desire to go to stool, which often leads the patient to imagine that he is suffering from diarrhœa. You have often noted cases in the wards of this hospital in which a spurious diarrhœa, excited and kept up by the cause under discussion, has resisted chalk mixture and various astringents, and has yielded immediately to a dose of castor oil,

which has brought away a quantity of hardened feces, or acrid unhealthy secretions. Therefore it was that in the case of J. S—— I did not allow the alleged action of the bowels to deter me from following out the plan of treatment I had resolved upon after a careful consideration of the symptoms of the case. If the pain were not excited sympathetically with the presence of acrid irritating matter in the intestines, to what could it be attributable? The closest inquiry had failed to elicit the slightest evidence of the existence of the other causes of sciatica, and if the cause under discussion had not excited the pain there was no indication for treatment. Accordingly I determined to make trial of remedies which will usually get rid of fecal accumulations, and thus effect the object I had in view. Whilst allowing the patient a full and generous diet, with a pint of porter daily, I prescribed a powder, to be taken three times a day, consisting of two scruples of guaiacum and two of sulphur. This treatment was commenced on the 5th of May, and was continued until the 11th. At that date the pain was greatly relieved, and the bowels were acting so freely, that the powder was repeated only night and morning. From this he took it usually twice, but sometimes once a day, according to the action of the bowels, until the 19th, when, as he no longer suffered from pain, he left the hospital, and returned to work.

The instances I have hitherto brought before you have been examples of sciatica, in which, the cause of the disease having been correctly diagnosed, the treatment was adapted to the exigencies of the case, and relief was speedily obtained. But although I have wished to bring prominently before you the possibility—nay, the probability—of affording speedy relief, if an appropriate method of treatment is employed, and the equal probability that failure will attend your efforts if you do not correctly ascertain the cause of the sciatic pain, and therefore cannot determine the class of remedies which are needed, I would caution you against putting a too favorable interpretation on my remarks, and imagining that sciatica ought in all cases to be got rid of within a few days of the commencement of treatment. Some cases there are, as you have already seen, which admit of relief in a very short time, but there are others, and unfortunately a large proportion, in which the patient's health is undermined, and cannot be so speedily restored, even though the nature of the derangement be correctly diagnosed; and others again in which it is almost impossible, at the outset of the attack, to arrive at a correct conclusion respecting the causation of the pain, and in which, even if a correct judgment was formed on this point, it would still be impossible to afford speedy relief. Let me instance the case of P. D——, aged forty-eight, who was admitted into the Hope ward on the 11th of December. This man, a "commissionaire" by occupation, had suffered nine months from pain down the course of the right sciatic nerve. It came on gradually, and he attributed it to the effect of exposure to wet and cold. The pain was constant, but was worse at night,

and prevented his obtaining quiet rest. A variety of external applications had been made use of prior to his admission to the hospital, but the pain had steadily increased in severity. On admission, his aspect was healthy; his skin natural; pulse 84, of fair strength; tongue rather coated; bowels reported regular; urine scanty, high-colored, and turbid; appetite good. He had never suffered from gout or rheumatism, or renal irritation, but he was extremely nervous. Judging from his history, and from the condition of his tongue and urine, I was led to regard his symptoms as attributable to rheumatic irritation of the nerves, aggravated by his nervous temperament. Acting upon this view, I prescribed a subcutaneous injection of half a grain of morphia at night, and a powder three times a day, containing guaiacum, sulphur, and carbonate of soda—a scruple of each. This treatment was pursued until the 17th, when as no relief had been obtained, he was ordered five grains of iodide of potassium, half a drachm of bicarbonate of potash, and an ounce and a half of nitre draught, every six hours. On the 21st his pain remained undiminished, and he complained of feeling weaker; and as his tongue had cleaned, and his urine had become clear, a drachm of the sesquioxide of iron was administered three times daily, and the biniodide of mercury ointment was ordered to be rubbed in along the course of the nerve. So he went on until the 2d of January, when he complained of so much pain in the hip that I was again induced to make a careful examination of the joint. I then discovered considerable tumidity and general enlargement over the joint, which was painful on pressure, and evidently much distended with fluid. He could move his leg carefully without pain, but could not bear the head of the femur to be pressed upwards against its socket. Under these circumstances I applied a blister to the hip, and had the blistered surface dressed with mercurial ointment; at the same time I gave him a morphia draught at night, and ordered him to take three times a day a nitre draught containing six grains of iodide of potassium, and two drachms of the solution of bichloride of mercury, forming a soluble biniodide of mercury. Notwithstanding this treatment the pain became more constant and severe, and on the 15th, as the mischief appeared to be purely local, and the occurrence of ulceration of the cartilages more than probable, he was transferred to the care of the surgeons.

Now I would have you remark in reference to this case—first, that the nature of the disease was overlooked, not only by those who had charge of the man prior to his admission to the hospital, but also by myself on his admission into the hospital, and that it was not until after the lapse of three weeks, when the enlargement of the hip attracted my notice, that I became aware of the serious mischief I had to combat. The result—the inevitable result of this non-appreciation of the nature and extent of the mischief—was want of success in affording relief, and a steady progression of the disease. Probably the man was correct in his assertion that

the malady was originally of rheumatic origin, for he was healthy in appearance, and had not experienced any local injury of a nature to set up disease in the hip-joint. It is quite conceivable, therefore, that if, when he was first attacked by the pain, its rheumatic nature had been recognized, and he had been subjected to treatment calculated to get rid of the rheumatic tendency, instead of being merely treated by embrocations, lotions, and other local applications, which could have no influence on the cause of the disease, and little effect in subduing its local consequences, he might have escaped the injury to the joint, which, doubtless, was commencing at the time of his admission into the hospital In like manner, if the true extent and character of the local mischief had been discovered when he first presented himself to my notice, and those measures had been at that time adopted, to which I was ultimately obliged to have recourse, he might even then have been saved much unnecessary suffering. Rely upon it, gentlemen, the success of treatment depends upon its adaptation to the requirements of the case, and that in sciatica the non-success of any particular plan which may be adopted is in itself conclusive evidence that the remedies are not in keeping with the nature of the case. If the pain is referable to any removable cause, and the remedies are calculated to subdue or get rid of it, relief will be experienced in the course of a few days, and the patient will thenceforward proceed steadily to recovery; and if you fail in any instance to afford relief in ten days or a fortnight, you will always do well to mistrust your diagnosis, and make a fresh examination of your patient. In the case of P. D——, I deferred doing so until after the lapse of three weeks, under the belief that my diagnosis was correct, and that a change of remedies might prove beneficial. The result shows how wrong I was in transgressing the rule which I have laid down for your guidance; and if you require any further incentive to induce you to follow my precept, rather than the example which I set you in this case, I may assure you that I have scarcely ever been called to see a case in which this rule had been departed from without feeling how much better the patient would have fared had his medical attendant been less confident in his diagnosis, and more disposed to pay heed to the teaching of nature, as evinced by the result of treatment.—*Lancet*, April 23, 1864.

On a Case of Spontaneous Thrombosis in the Left Femoral and Saphena Vein, By H. M. TUCKWELL, M.D.

A. B., aged 33, has previously enjoyed good health; during the past year has allowed himself but little rest in his profession, and has become thoroughly overworked. His present illness commenced about a month ago with severe pain in the head, which lasted five or six days without intermission, and left him much

weakened. The pain then shifted to the loins, and continued there for two weeks, during which time he was extremely depressed and unable to get about. At the end of this time, rather more than a week ago, he was attacked suddenly in the night by a violent pain in the right side, which seems to have been purely neuralgic, for no signs of pleurisy could be detected at the time; this pain continued for three days and nights, during which time *he lay continually on the left side*, without sleep, and taking no food, till, on the fourth day, it left him almost as suddenly as it had come on. On attempting now to change his posture he found that the leg was quite numb, that sensation began to return after rubbing the leg for a time, but that with returning sensation there came on an intense pain in the lower part of the leg, more especially in the calf; that he soon observed the leg and foot beginning to swell; that the swelling gradually involved the whole leg, and extended up the thigh to the groin, the pain becoming generally diffused and intensified as the swelling extended and increased. I saw him on the fourth day after the swelling had commenced, when the following appearance presented itself:—

He is extremely prostrate, unable to raise himself in bed; the eyes hollow; the voice low and changed; skin generally cool, except of the left leg, which is abnormally hot; pulse 60, very small, thready and irregular, intermitting at every third beat; thorax generally resonant on percussion; respiration feeble, but free from any morbid sound; urine natural. The left leg, from the groin to the toes, is enormously swollen, pitting everywhere deeply on pressure, its surface is hot and very sensitive; an indistinct hardness can be felt through the œdema along the course of the femoral and saphena vein as far as Poupart's ligaments, above which point it cannot be traced; beneath the œdematous integuments large superficial veins are seen ramifying along the anterior and outer aspect of the thigh.

Diagnosis.—Thrombosis of saphena and femoral, perhaps of external iliac vein.

Treatment.—To relieve the pain, cold was applied to the whole limb in the form of evaporating lotions, and the limb was supported on pillows. Small quantities of brandy and wine were administered, with milk and beef-tea.

On the day following, Mr. Savory saw the case with me, and gave me the benefit of his valuable opinion. He fully concurred in the diagnosis, but advised that the leg should be wrapped in cotton-wool, and pressed upon me most forcibly the necessity of increasing the quantity of stimulants, bidding me, to use his own words, "measure the quantity not by the glass or bottle, but by the effect produced." From this time, brandy, rum, port, sherry and champagne were given every two or three hours day and night, till, on the sixth day from the time that I first saw him, he was taking, in the twenty-four hours, brandy, ℥ zij.; rum, ℥ xij.; wine, ℥ xx. The effect of this on the pulse was as follows:—It rose from 60 to 94, the intermissions at the same time becoming less

frequent, and the volume better and better, till, on the tenth day from the time that the stimulants were first given, and while he was still taking the above quantity, *it fell to* 84, and ceased to intermit. His general condition improved, *pari passu*, with the pulse. At the request of the patient I returned to the cold applications, after having made fair trial of the the cotton-wool and found that it made the leg uncomfortable, while the cold relieved the pain in a marked degree. On the twelfth day, the pain having quite subsided, while the swelling remained unchanged, the leg was carefully rolled in flannel bandages, moderate pressure being at first employed and gradually increased, and it was swung from a fracture cradle, with the foot slightly raised. This was continued during a period of seven weeks, at the end of which time the swelling had entirely disappeared. It may be remarked that the œdema subsided rapidly for the first week after the application of the bandage, but then seemed, for a time, to remain stationary, and was at last slowly removed. The quantity of stimulants was gradually reduced after the fourth week.

He has now recovered his health, can walk two or three miles in the day, but still finds, after a walk, that the leg and foot feel heavy, and that the veins in the foot become, in spite of a lace-stocking, considerably distended. There is now nothing abnormal to be felt or seen in the thigh in the region of the large veins, nor is there any visible enlargement of the superficial veins there.

Remarks.—The occurrence of spontaneous coagulation in the living veins, simply as a result of nervous debility, independently of the puerperal state, of fever, or of any wasting organic disease, as phthisis, cancer, etc., is seemingly, a rare phenomenon. On reading through Virchow's masterly paper on the subject, I connot find, among the many cases of thrombosis there enumerated, one exactly similar; nor is there in Cohn's monograph one case in which there was not either some organic disease or fever to account for the coagulation. Not that I wish to instance this case as one whose pathology is distinct or special, for the so-called "Marantischer Thrombus" of the Germans, or clot that forms in wasting disease, is, as Virchow has shown, dependent primarily on the same cause,—an enfeebled state of the heart's action; but the disease here presents peculiar interest, in that there was an absence of any dyscrasia or fever which might be supposed to give rise to the formation of a thrombus by altering the composition of the blood; it shows that to a feeble heart alone may be attributed all the symptoms and signs of the worst form of "phlegmasia dolens." It may be urged by some, in contradiction of this assertion, that phlebitis was here the real cause of the coagulation; but a careful observation of the way in which the disease showed itself seems to me to afford convincing evidence that no phlebitis whatever was present, and thus to confirm still further the doctrines of Virchow. The rapid development and extent of the swelling certainly point to a primary obstruction of the main venous trunk in the thigh. Now, if this obstruction had been due to phlebitis, surely the first

symptoms of pain and swelling would have been noticed in the immediate neighborhood of that venous trunk, whereas nothing of the kind was observed. The swelling and pain commenced in the leg and foot, and extended, last of all, to the thigh; nor was there at any time marked pain, along the course of the obstructed vein, distinct from that felt all over the leg. Besides, the general symptoms were not those of an acute inflammatory process; the skin of the body, generally, was cold, and the pulse quite unlike that of inflammation. The conversion of the saphema and femoral vein into a solid tube by coagulation of their contents, is quite sufficient to account for the hardness felt along their course.

John Davy and Gulliver were the first to notice the frequent occurrence of clots of this kind in the veins of those who had suffered from chronic diseases, with failing circulation and great prostration of the vital powers. After them, Hasse and Bouchut turned the attention of pathologists still further in this direction. But to Virchow must be awarded the largest share of praise, for he it was who first cleared away the mists which enveloped the whole subject; he showed, by repeated experiments and post-mortem examinations, that the doctrine of phlebitis, first promulgated by John Hunter, is erroneous; that the coagulation is not preceded by inflammation of the vein, and that there is no exudation on the free surface of its inner coat which determines coagulation; but that, through failure of the heart's power, the blood current is retarded and finally stagnates, and that the starting point for coagulation is at the point of junction of the valve with the wall of the vein, the valve here (like the chordæ tendinæ in the heart) acting as a foreign body, and furnishing a centre round which the stagnant blood coagulates.

It is worthy of notice that, in circumstances predisposing to thrombus formation, a long continuance in one posture seems to favor the occurrence of the phenomenon, and that the side to which the patient inclines is often the side on which the clot forms. Virchow dwells upon this, and relates cases which corroborate the statement. Cohn has observed the same; he mentions one case in particular—a case of Bright's disease with effusion into the right pleura—where the patient lay continually on the right side and right arm, and where the whole right arm became œdematous from the formation of a thrombus found after death in the subclavian vein.

The contingencies to be feared in these cases are, first, that the heart may not be able to recover itself, and that death by asthenia may follow rapidly; secondly, that erysipelas may set in, followed by diffuse abscess, or even gangrene; thirdly, that a portion of the clot may be detached and washed into the pulmonary artery, causing sudden death; fourthly, that the clot may undergo the so-called retrograde metamorphosis, may soften and break down in its interior, and that this softened, ill-conditioned fibrine may be

carried into the general circulation, and cause death from pyæmia. The heart must regain its lost power, and the clot must undergo a healthy process of organization, before anything like a favorable prognosis can be given.

The question then arises as to how the circulation is reëstablished; the answer to which is, by the formation of collateral channels, if the vein be completely obliterated by the organized clot. But it may also happen that the canal of the obstructed vein may in part reopen; that the clot, during the process of organization, may shrink away from one wall of the vein as it becomes adherent to the other; and that the blood may flow on again in its original channel, now of necessity much narrowed by the changes that have taken place. It is probable that the latter has occurred in the case related, from the fact that there are no large superficial veins visible.

The circumstances of principal interest in the treatment employed are, the beneficial effect of cold, the value of pressure, and the necessity of stimulants.

The application of cold—a remedial agent so largely employed in Germany—is strongly recommended by Virchow as the best and often the only means of alleviating the terrible pain that follows the sudden obstruction by an embolus of one of the large arteries of the extremities. The relief it afforded in this case was most marked. Pressure carefully applied and gradually increased by means of a flannel bandage—a plan of treatment employed by many obstetric physicians in the latter stages of the puerperal phlegmasia dolens—was here, too, attended with good results. The rapid and manifest improvement in the general condition of the patient, and the restoration of the heart's power in proportion as the quantity of stimulants was increased, sufficiently indicate their importance in the treatment of such cases. And, surely, if alcohol acts thus beneficially after the mischief has been done, we cannot avoid the reflection, that the free use of alcohol in wasting diseases may often avert the mischief altogether, and that the stimulant plan of treatment has, at any rate, this much to be said in its favor, that it tends to prevent the formation of thrombi. In the history of this disease we have, certainly, one satisfactory example of the way in which a real advance in pathology leads to a corresponding advance in therapeutics.—*Medical Times and Gazette.*

[The preceding article has been transferred to our pages of selected papers on account of its practical interest, and that we might call anew the attention of readers to a class of important cases, to which that above recorded belongs, and instances of which now and then occur with disastrous results in the practice of every physician.

Sudden death from fatty degeneration of the heart is but a sin-

gle consequence of the influences which, operating in a less degree, produce results similar to those recorded by Mr. Tuckwell. A number of striking instances have been related in this JOURNAL on various occasions, where patients died suddenly, or came near it, solely from the inefficiency of the muscular power of the heart to propel the blood to the brain, the syncope consequent thereon terminating fatally or nearly so. Other cases illustrating this mode of death, have, from time to time, been reported as following the sudden rising from the recumbent to a sitting posture of females recently confined; the muscular force of the heart, weakened by the exhaustion incident to pregnancy and its attendant loss of blood, proving unequal to the task of circulation; or, what practically amounts to the same thing, the volume of circulating fluid being greatly diminished and altered, becomes an inadequate stimulus to the heart, which thus fails to drive the blood to the brain, against gravity, in sufficient quantities for the sustenance of the nervous influence upon which its contractile power depends; syncope, therefore, takes place and not unfrequently proves fatal. Mr. Tuckell points out in his paper other accidents consequent upon this condition of the heart. In the case narrated, an arrest of a portion of the circulation was produced by the influences we have described. The bearing of these upon the production of phlegmasia dolens is also distinctly alluded to. As interesting in this aspect of the subject, we desire to mention the following case:

A patient, recently under our charge, was confined in November last. Naturally healthy and robust, the care of children and household responsibilities, none of which her energetic disposition would allow her to delegate to others, had enfeebled her health and reduced her strength to a state ill qualified to bear the further exactions of an increasing family, or to resume at so early a period as inclination prompted her domestic duties. After a slow convalescence, and contrary to advice, she again, however, returned to her active habits, long before her anæmic and exhausted condition warranted. Early in February a small felon formed on one of her fingers; a fortnight later, a little, indolent abscess gathered in one of her breasts, and a week afterwards she complained of pain and swelling about her ankles. On examination, several tender and indurated nodosities were detected in the course of the superficial veins of both legs, below the knee, chiefly in the vicinity of the ankle. These were sufficiently raised above the surface to be visible in profile, surrounded by a circumscribed deposit of lymph, pitting upon pressure and marked by a trifling redness, which subsequently became slightly ecchymosed. This condition was unaccompanied by any febrile or constitutional disturbance; the nodules persisted and multiplied for some time, being aggravated by the least attempt at walking or even by allowing the feet to hang down. Rest and tonic treatment, with the application of tincture of iodine externally to the knots, at the end of six weeks, arrested the further development of these swellings, none of which

threatened suppuration or indeed manifested any signs of active inflammation. An indolent tumefaction continued to mark the seat of each tumor which appeared. These phenomena, constituting what is described by Cruveilhier as "adhesive phlebitis," are not of common occurrence, and, we are led to think, not really of the nature of phlebitis at all, but due rather to a stagnation of the blood, or, in other words, that they are "spontaneous thrombosis," in a remote part of the circulation, from sheer inability on the part of the heart to propel the blood through its entire circuit. The condition of our patient's pulse, which was very weak and small, the feebleness of her heart's action, her anæmic condition and generally impaired health, as shown by the felon and abscess, together with the extent to which she was upon her feet, justify this theory of the symptoms, especially in presence of a case like that which has served us as a text, and in the light of the discussion which is there elaborately entered into. It is difficult to imagine, in a subject like ours, that, had the symptoms been carried one degree further, much graver consequences would have been the result.

Occurring insidiously, in convalescents, or in delicate persons enjoying their usual degree of health, characterized by grave and sudden manifestations, the events liable to attend enfeebled action of the heart, whether from fatty or other degeneration, cannot be too frequently present in the mind of the physician or too earnestly brought to his notice.]

Proceedings of the Fifteenth Annual Meeting of the American Medical Association, held at New York, June 7th, 8th and 9th, 1864.

TUESDAY, JUNE 7TH—MORNING SESSION.

The Association met pursuant to regulations at eleven o'clock Tuesday morning, June 7, 1864, at Irving Hall, New York, and was called to order by the retiring President, Alden March, M.D., of Albany, supported by retiring Vice-Presidents, Dr. John Cooper of Delaware; Dr. David Prince of Illinois; Dr. C. C. Cox, Surg. U.S.V. The Secretaries, Drs. H. A. Johnson of Illinois, and Guido Furman of New York, were also present.

Prayer was offered by the Rev. Dr. De Witt of New York, after which Dr. James Anderson of New York, Chairman of the Committee of Arrangements, welcomed the delegates and members, and made the following report:

MR. PRESIDENT AND DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION—GENTLEMEN:—In the discharge of the duty devolved upon me as Chairman of your Committee of Arrangements, it affords me great pleasure on this, the fifteenth anniversary of the Association, in behalf of your committee as well as the profession in general, to extend to you a cordial welcome. This organization, whose germ was first developed in the Medical Society

of the State of New York, was perfected on the seventh of May, 1847, by the election of the venerable Dr. Nathaniel Chapman of Philadelphia as its first President, since which time its meetings have been held in nearly all the prominent cities of our country. Its sole object has ever been the elevation of the dignity and usefulness of the profession, in the endeavor to obtain which it becomes us individually as well as collectively, by our advice and example, to stimulate each other to higher attainments, and by our conduct to command respect. It is now eleven years since your last meeting in this city, around which occasion cluster many pleasant reminiscences, saddened only by the absence of some of the brightest names among your ranks, who have passed to their silent resting place—names which gave dignity to your body and wisdom to your counsels. Your Commitee of Arrangements, in due time after their appointment in Chicago, organized and invited a representation from the hospitals, colleges, and medical societies of this city and Brooklin, for the purpose of eliciting a united expression and procuring a more extensive and general welcome to this national reunion, and have matured such plans as it is hoped will render your stay both instructive and interesting. Guide-books will be furnished to each delegate, with a programme comprising a variety of intellectual as well as social amusements. Among the institutions which have sprung up since your former visit may be noticed St. Luke's Hospital, on the Fifth Avenue, with a full and efficient medical staff; also a medieal college under the auspices of the Commissioners of Charities and Corrections, and in connection with the Bellevue Hospital and Alms-House; and in time, through the liberal bequest of the late Mr. Roosevelt, a third hospital will be added to the list. There is a feature, Mr. President, in your present assembling, of deep interest and solemn regret. I allude to that profound silence of several, and the diminished response of other States, which will appear upon the calling of the roll. It would not be proper on this occasion, nor becoming the circumstances under which I appear before you, to allude to its cause. Let us trust, however, that, through the interposition of an all-wise and overruling Providence, the time is not far distant when we may again offer to our alienated brethren the hand of professional fellowship which it is our privilege to extend to you this day. I again welcome you all to this metropolis.

On motion, the report was received and adopted. Dr. Anderson, on behalf of the Committee, suggested that the Asssociation should hold two daily sessions during Tuesday, Wednesday, and Thursday—one in the morning, from ten to half-past one o'clock P. M.; and one in the afternoon, from three o'clock until such time as was the pleasure of the body to adjourn. On motion, this suggestion was ordered to be embodied in the report.

Surg. C. C. Cox, U. S. V., moved that Surg. Charles S. Tripler, U.S.A., be invited to a seat on the platform.

It was then moved that the Association should take a recess of ten minutes for the purpose of affording an opportunity to the delegates to select the Nominating Committee, which was carried. After the lapse of the specified time, the Committee elected reported the following names:

J. C. Weston, Maine; Thos. D. Marshall, N. H.; J. N. Stiles, Vermont; Horatio R. Storer, Mass.; Johnson Gardiner, Rhode Island; E. H. Catlin, Conn.; Jas. P. White, New York; L. A. Smith, New Jersey; A. Nebinger, Penn.; F. E. B. Hintze, Md.; Henry F. Askew, Del.; B. B. Leonard, Ohio; Jas. F. Hibbard, Ind.; Wm. H. Byford, Ill.; S. G. Armor, Mich.; J. H. Bartlett, Wis.; A. E. McCurdy, Iowa; George W. Phelps, Mo.; Noble Young, D. C.; Thos. Antisell, U.S.A.; and Thos. L. Smith, U.S.N.

RETIRING PRESIDENT'S ADDRESS.

Dr. Alden March was next requested to read his retiring address as President of the Association. His subject had reference to the elevation of the standard of the profession by a thorough and proper medical education. After a few general and preliminary remarks, and the rehearsal of the views of many of those who had devoted considerable time and attention to the theme, he set forth its claims upon the consideration of the Association as a body, and urged the importance, in the first place, of a fitting preliminary education, as the grand foundation-stone upon which to rear the superstructure, and contended that every candidate for the honorary degree of Doctor of Medicine should be required to attend three full courses of lectures, instead of the two usually prescribed. If this plan were carried out, he had no doubt but that the time of study thus increased would afford the student an opportunity to digest more fully the great principles of our art as given to him in the lecture-room. Too many of our young men, in his opinion, were allowed to graduate, who for want of these very opportunities, suffered from a mental indigestion which troubled them more or less through their whole professional career, and prevented them from applying the great truths of science to every-day practice with that degree of satisfaction which was the only sure forerunner of advancement and success. If each course should only comprise a period of four months, he thought that the entire time of attending lectures, extending, as it should, over a period of three years, would be more than equivalent, in point of actual benefit to the student, to the ordinary two full courses of six months each.

Dr. Wilson Jewell, Pa., moved that a vote of thanks be tendered to Dr. March for his able and interesting address, and that he be requested to furnish a copy for publication.

The Association then adjourned till three P. M.

TUESDAY—AFTERNOON SESSION.

The Association was called to order by the President, after

which the minutes of the previous session were read by the Secretary. The names of registered members were next read.

OFFICERS FOR THE ENSUING YEAR.

The Nominating Committee then made the following partial report:

President, N. S. Davis, of Illinois.

Vice-Presidents, { W. S. Mussey. Ohio. / Worthington Hooker, Conn. / William Wheelin, Ind. / F. E. B. Heintze, Md.

Secretary, Guido Furman, N. Y.

Treasurer, Casper Wister, Pa.

The Committee recommended Boston, Mass., as the place for holding the next annual meeting.

Dr. Griscom, N. Y., moved that the report of the Committee be laid upon the table in order to discuss the following proposed amendments to the plan of organization:

1st. Providing for the appointment of one permanent Secretary.

2d. That the President and Vice-Presidents of this Association elected each year shall assume the functions of their respective offices at the beginning of the meeting of the year next succeeding their election.

This motion, however, was, after much discussion, finally lost.

Dr. Raphael, of New York, then moved that the report of the Nominating Committee be recommitted, with instructions that two Presidents be nominated instead of one, and that the one who should receive the majoity of the number of votes cast should be declared elected.

A lengthy discussion then ensued as to the propriety of the measure, and it was eventually voted down.

The question for the adoption of the report of the Committee was next put and carried.

On motion of Dr. Griscom of New York, the President and Vice-Presidents were duly escorted to their chairs.

Dr. N. S. Davis, on assuming his duties as President of the Association, tendered his sincere thanks for the honor conferred upon him, and asked of the members their kind co-operation in his endeavors to perform the duties of his office.

The Chairman of the Committee of Arrangements stated that invitations were extended to the members to visit the following places: U. S. Navy Yard, Brooklyn; Greenwood Cemetery, Brooklyn; Collegiate and Polytechnic Institute; Long Island College Hospital; U. S. Naval Hospital, Brooklyn; U. S. Soldiers' Depot, N. Y.

The following gentlemen were announced as members by invitation: Drs. Ed. M. Stein, G. R. Brush, P. H. Barton, D. McSweeney, H. H. Gregory, Elisha Harris, and B. Dewitt, Bradford Co., Pa.

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The President appointed the following Committee to examine all voluntary communications: Drs. A. B. Palmer, H. F. Askew, S. G. Hubbard.

Dr. Cyrus Ramsay, N. Y., moved that the regular order of business be suspended, and that the proposed amendments of the Constitution be taken up. Which was carried, and the following amendment introduced:

Amendment of the Constitution in Relation to Permanent Secretary.

It is hereby ordained that Article 4, Sec. 1, of the Constitution be amended as follows: From the 2d line strike out the words "two Secretaries," and insert "one Permanent and one Assistant Secretary;" and in the 5th line after word "officer," insert the words "except the Permanent Secretary;" also add to the same section the following: "the Permanent Secretary shall hold his appointment for ten years, unless sooner removed by death, resignation, or a vote of two-thirds of the members present at a regular annual meeting."

And be it further ordained that Section 5 of the same article be stricken out, and the following substituted in its place, viz.: "The Permanent Secretary shall record the minutes and authenticate the proceedings, give due notice of the time and place of each next ensuing annual meeting; notify all members of Committees of their appointment and of the duties assigned to them; hold correspondence with other permanently organized Medical Societies both domestic and foreign; serve as a member of the Committee on Publication; see that the published Transactions are promptly distributed to all the members who have paid their annual assessment, and carefully preserve the Archives and unpublished Transactions of the Association.

The Assistant Secretary shall aid the Permanent Secretary in recording and authenticating the Proceedings of the Association; serve as a member of the Committee of Arrangements, and perform all the duties of permanent Secretary temporarily whenever that office shall be vacant either by death, resignation, or removal.

And be it further ordained, that Article 6, Section "*second*," be added after the word "meetings," in the second line, the following, viz.: "including the necessary expenses of the permanent Secretary in maintaining the correspondence of the Association."

After reading the amendments, Dr. Jewell of Pennsylvania moved to strike out from the last clause, "attending the regular meetings." Which motion was adopted.

Dr. Nebinger, Pa., moved to strike out the word "ten" in the second paragraph, and substitute "five." Which was lost.

Dr. Griscom proposed to strike out all that related to a specified term of years.

The previous question being called for and sustained, the amendment of Dr. Griscom was carried.

The question recurring on the adoption of the proposed amendments as amended, it was finally carried in the affirmative.

The Association then adjourned until ten A. M. of the day following, June 8.

During the evening the members were handsomely entertained at the residences of Drs. Jos. M. Smith, C. A. Budd, Isaac E. Taylor, Gurdon Buck, and Mayor Gunther.

WEDNESDAY, JUNE 8TH.—MORNING SESSION.

The Association was called to order by the President, N. S. Davis, at 10 A. M.

The minutes of the previous session were then read by the Secretary, Dr. Furman, and adopted.

The following gentlemen were elected members by invitation, and were requested to take seats on the platform: Drs. C. W. Stearns, N. Y.; C. C. Knight, New Haven; S. H. Casey, Oneonta; W. B. Southern, Mich.; Philander White, Oswego Co., N. Y.; F. L. Livingston, Barrett, Mass.; Jno. Green, Worcester, Mass.; —— Noyes, Norwalk, Conn.; Thomas Cock, N. Y.

On motion, the following gentlemen were elected permanent members: Drs. Brown-Sequard, Boston, Mass.; John P. Gray, State Lunatic Asylum, Utica, N. Y.

The reports of the Standing Committee were next called for in regular order and referred to their appropriate sections.

TREASURER'S REPORT.

The report of the Treasurer, Dr. C. Wister, showed a balance on hand of $449.02. Only about 120 copies of Volume xiv. have been sold during the past year.

REPORT ON COMPULSORY VACCINATION.

Dr. Jas. F. Hibbard, Chairman of the Committee on Compulsory Vaccination read a report in which it was contended that the adoption of the measure was impracticable, inasmuch as it was necessary for the people to be convinced of its utility and harmlessness before they would submit. They could be properly educated in this matter by the medical profession, who should act as a unit in recommending it under all circumstances. The Committee also recommended that the daily papers throughout the Union should be requested to ventilate the matter, and use every persuasion in their power to bring the public to a proper understanding of the power of vaccination in preventing the spread of small-pox. The report concluded with the following resolutions:

Resolved, That a committee of be appointed, to supervise and control under the direction of this Association, all matters pertaining to general vaccination.

Resolved, That a committee of be appointed in each State

to superintend the measure in its State, which committee shall be subordinate, auxiliary, and advisory to the Central Committee.

Signed, JAS. F. HIBBARD, Chairman.
WILSON JEWELL,
JNO. H. GRISCOM.

Adopted, and referred to the section on Public Health

Dr. H. H. Childs, of Mass., was invited to take a seat on the platform.

MEDICINES AND SURGICAL APPARATUS FOR THE WOUNDED AND SUFFERING IN THE SOUTH.

Dr. A. K. Gardner, of New York, offered the following:

Whereas, It is the duty and great distinction of Christian nations, and in conformity with the highest instincts of humanity, to assuage the sufferings and mitigate the horrors of war in every possible manner, in which attempt the medical profession has ever been eminently conspicuous; and

Whereas, The stringency of our blockade of the Southern coast has to a great extent deprived the sick and wounded, the feeble babe, the helpless woman, the aged man, as well as the sufferers by wounds and disease in the ranks of our enemies, of needful appliances to relieve pain and to save life; and

Whereas, From the same cause thousands and tens of thousands of our own brave sons and brothers, fighting for the holy cause of our glorious Union, and left wounded on the battle-field in the hands of the enemy, have been compelled to have operations performed without the relief and benefit which chloroform would bring, and have lain in suffering unto death in the hospitals of the South from the absolute destitution of the country of many needful medicines and instruments of surgery; and

Whereas, These articles are in no respect to be considered as among the "sinews of war," and, as has been seen, are not material to a vigorous prosecution of rebellious warfare; and

Whereas, This association, numbering among its lawful members the medical men of the entire thirty-four States of the Union, we deem it eminently fitting that we should urge upon the Government and the people of the United States to remember the universal brotherhood of man and the undying attributes of humanity; it is therefore unanimously

Resolved, That the Association request the President of the United States to take such action as shall cause all medicines and medical and surgical instruments and appliances to be excluded from the list of articles called "contraband of war," and that such articles in any quantity may be purchased by any person in any State of the Union, and may be conveyed beyond our lines under a flag of truce, after proper inspection, so as to give every necessary comfort to relieve any human suffering, whether of our own soldiers or that of the enemy.

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Resolved, That a copy of the above Preamble and Resolution be sent to the President and Heads of Departments, and to each and every member of the United States Senate, and attested by the officers of this Association; and that every member be requested to use all the influence in his power in stripping this fratricidal war of some of its unnecessary horrors, and thereby to inaugurate the re-establishment of more kindly feelings, and to smooth away some of the obstructions to the reconciliation of our misguided brethren.

Resolved, That a Committee, representing every State of the Union here present, be appointed to present these resolutions to the President.

On motion, the consideration of the resolutions was indefinitely postponed.

INCREASE OF RANK AND PAY OF MEDICAL STAFF OF ARMY AND NAVY.

Dr. C. C. Cox offered a resolution to increase the rank and pay of medical officers of the army any navy.

Dr. Frank H. Hamilton urged the passage of the resolution by some well-timed and appropriate remarks, after which the question was put and carried unanimously.

The Chair appointed a Committee, composed of the following gentlemen, to report upon the same and prepare a memorial for the action of Congress:—Drs. McGugin, Iowa; Antisell, Washington, D. C.; F. H. Hamilton, N. Y., and Askew, of Delaware.

The Association then adjourned until 10 A. M. of Thursday, June 9.

The afternoon was occupied in the meeting of the different sections.

The entertainments for the evening were given by Drs. Willard, Parker, James Anderson, Alonzo Clark, and Jared Linsley.

THURSDAY—MORNING SESSION, JUNE 9.

The Association was called to order by the President shortly after 10 A. M. The Secretary then read the minutes of the previous session, which were, on motion, adopted.

Surg. C. C. Cox, the Chairman of the Committee appointed to memorialize the President of the United States in reference to the increase of rank and pay of medical officers of the army and navy, moved that Dr. Charles S. Tripler be added to that Committee, and be appoinied the Chairman of the same. Carried.

Dr. Moran, R. I., called the attention of the Association to the prizes offered by the Rhode Island Medical Society, and stated that they were two in number, one hundred dollars each, and were open to the competition of all.

TIME OF NEXT MEETING.

On motion of Dr. Askew, of Delaware, it was agreed that the

time for the next meeting of the Association should be on the first Tuesday of June, 1865.

REPORTS OF STANDING COMMITTEES.

The reports of the Standing Committees were again called for, with the following results:

Committee on Insanity.—Dr. R. Hills, of Ohio, the Chairman of the Committee, in a note addressed to the Association, reported progress, and asked for further time, promising an elaborate report if such a privilege were granted.

It was then carried that the time should be extended; and on motion of Dr. Griscom, Dr. E. H. Van Duser, the Medical Superintendent of the State Lunatic Asylum, Kalamazoo, Mich., was added to the Committee.

Committee on Prize Essays.—The Chairman of the Committee not being present, the calling for the report was deferred.

REPORTS OF SECTIONS.

Dr. S. W. Butler, of Philadelphia, the Chairman of the Section on Medical Topography and Epidemic Diseases, presented a report, which was adopted in full, and the following gentlemen were appointed as members of the Committee to carry out the spirit of the resolutions appended to the report of the Committee on Compulsory Vaccination:—Drs. A. N. Bell, Brooklyn; J. P. Loines and H. D. Bulkley, N. Y.; A. Nebinger, Philadelphia; and J. F. Hibbard, Indiana.

The Section on Surgery and on Practical Medicine and Obstetrics made no report at this period of the proceedings.

REPORT ON THE PRACTICAL WORKINGS OF THE U. S. LAW RELATING TO THE INSPECTION OF DRUGS AND MEDICINES.

Dr. Squibb, the Chairman of the Committee on the Practical Workings of the U. S. Drug Law, made a statement to the effect that the gentleman who composed that Committee could not agree upon the report prepared for their action; and inasmuch as at the time it was presented for their consideration there was not opportunity for an interchange of views upon the subject, they respectfully requested that, as a Committee, they should be discharged.

On motion of Dr. Gardner, the report of the Committee was accepted and the Committee discharged.

Dr. Squibb then proceeded, by invitation, to present his views upon the subject, in the form of a voluntary communication. He contended that the practical working of the law was to all intents and purposes a dead letter, and that the Secretary of the Treasury had not acted upon the earnest solicitations of the Committee from the different Societies and Colleges in New York who had been appointed to memorialize him upon the subject, but had made an appointment without qualifications, which could be ascertained at the time, or which have since been manifested in the duties of the

office, since drugs of very inferior quality were constantly passed through the Custom House. As an example he instanced several articles, among which were those of jalap and scammony, which were, on examination, found to contain a very small per cent. of active principles—much below that which the law prescribed. He threw out the suggestion that, considering the facts of the appointment of the present inspector, it would be of little use to make any further requests to the appointing power.

In conclusion, he stated that he alone was responsible for the statements contained in the paper, and that Dr. Bowditch, one of the Committee, declined to sign a report which he considered of a partisan character, reflecting upon the officers of the General Government at the present time. Dr. Carson, the other member of the Committee, did not wish, as a matter of principle, to sign a paper until he was satisfied, from personal observation, that all the statements therein contained were correct.

After some discussion, the report of Dr. Squibb was accepted, after which

Dr. S. R. Percy, of New York, remarked that Dr. Squibb had labored under a false impression in making the statements contained in the paper; and further stated that the appointment of Drug Inspector was made by Secretary Chase in perfect good faith, and with the conviction that it would meet the end for which such an appointment was designed. That gentleman had made diligent search for the right man, and, as the result of very numerous recommendations from reliable men of the profession, had selected the present incumbent. Concerning the honesty of the present Inspector, Dr. Percy was prepared to vouch, from a personal knowledge of that gentleman's character, and he could confidently assert that every endeavor had been made to discharge the duties of the responsible office with fidelity. Every specimen that it was possible to examine was carefully examined before it was allowed to pass, and he could not conceive upon what foundation Dr. Squibb had made his assertions. In conclusion, he did not think it came within the province of the Association to indorse any stigmas made against any one; and as a friend to the Inspector, he felt that it was his duty publicly to defend him.

Dr. Squibb remarked that he was not acquainted with the Inspector, and did not allude to any one by name, but he merely had presented facts which came to his knowledge, leaving the members to draw their own inferences. He only referred to the two articles, scammony and senna, stating that he had examined specimens of the former article, which contained as low as 15 per cent. of active principle, instead of 70; and of the latter article, which contained from 10 to 55 per cent. of sticks and stones, and which in that condition had passed the Custom House.

A motion was made to refer the paper to the Committee on Publication, with discretionary power, which was lost.

Dr. Curry, of Westchester county, spoke at some length against

the general practice of referring papers to the Publishing Committee, urging, as an argument against it, that many communications would find their way into the volume which would not be entitled to it, and thought that the Committee should have ample discretionary power in the matter. He did not wish it to be understood that his remarks referred to Dr. Squibb's paper, but only wished the principle of the thing to be discussed.

The President stated that the discretionary power belonged to the section to which any paper might be referred, and suggested the propriety of referring Dr. Squibb's paper to the Section on Chemistry.

Dr. McFarland, New York, thereupon made a motion to refer it to that section, which was carried.

REPORT OF SECTION ON PRACTICAL MEDICINE AND OBSTETRICS.

Dr. Storer, Boston, read a report of the meeting of the Section held the afternoon before, and concluded the same by presenting the following resolutions, which were appended to his paper, and which we have already alluded to:

Resolved, That in the opinion of the American Medical Association it is expedient that there should be attached to every public hospital for the insane, one or more consulting physicians, whose appointment should be honorary, and who may be consulted at the discretion of the superintendent, such measure being alike for the interest of the hospital, its medical officers, and its patients.

Resolved, That a copy of the above resolutions be transmitted to the Board of Trustees of each of our public hospitals for the insane, and also to the Secretary of the Association of American Superintendents for the Insane, and request that it may be indorsed by that body, the action proposed being upon the respective boards with which its members are officially connected.

Dr. Griscom contended that the Association, by passing these resolutions, would prevent any medical man who should be so appointed from receiving any remuneration. He thought that the physician should be paid for his services, if he chose to make an arrangement to that effect with the managers of the institution; but if he was disposed to accept it as an honorary position, the matter was of course only a personal one. These being his views, he moved that the clause, "whose appointment should be honorary," be stricken out.

Remarks were made endorsing Dr. Griscom by Drs. Gardner, New York, McCarthy, Illinois, and others.

The amendment was then carried, after which the resolutions were passed upon as a whole.

The report of the Section was also adopted.

THE COMPLETION OF THE REPORT OF THE NOMINATING COMMITTEE.—ELECTION OF A PERMANENT SECRETARY.

Before the reading of the report of the Nominating Committee,

Dr. Griscom obtained permission to make a few remarks upon the duties which should be required of the Permanent Secretary. He considered that it was of the utmost importance that the right man should be selected for the performance of duties which involved so great responsibilities. He contended that such an officer of the Society should hold regular correspondence with all the members and with all the different Societies throughout the country; that he should attend every meeting; should procure a systematic reduction of fare over the different railroad lines communicating with the city in which the meeting is held; that he should give his personal attention to the sale of the Transactions, and use every endeavor to advance the interests of the Association. Such a man, in his opinion, could only be obtained by proper remuneration, and he therefore moved the adoption of a resolution to the following effect:

Resolved, That the Permanent Secretary shall be entitled to the compensation of —— dollars per annum, payable out of any surplus funds of the Association after all other claims for each current year shall be paid.

Considerable discussion here followed as to the propriety of adopting the resolution, and the amount of remuneration to be offered, when it was finally agreed to lay the matter on the table.

COMPLETION OF REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations then presented the completion of their report, as follows:

Committee on Exsection and its Connexions with Conservative Surgery (enlarged)—Drs. Sayre, N. Y.; G. W. Morris, Pa.; G. C. Blackman, Ohio; H. S. Tewksbury, Me.; E. Andrews, Ill.; Geo. B. Twitchell, N. H.; J. C. Hughes, Iowa; G. Clymer, U. S. N.; J. R. W. Dunbar, Md.; R. H. Gilbert, U. S. A.

On Drainage and Sewerage of Large Cities and their influence on Public Health.—Drs. W. J. C. Duhamel, D. C.; E. C. Baldwin, Md.; Cyrus Ramsay, N. Y.

On Alcohol and its Relations to Man.—Dr. G. E. Morgan.

On Microscopic Observations in Cancer-Cells.—Leonard J. Sandford, Conn.

On Quarantine.—(Continued.)

On Medical Ethics.—Drs. J. Murphy, Ohio; M. L. Linton, Mo.; B. F. Schenck, Pa.; Swain Wickersham, Ill.; A. J. Fuller, Me.

On the Microscope.—Dr. Jas. M. Corse, Pa.

On Relations which Electricity sustains to the Causes of Disease.—Dr. S. Little, Pa.

On the Morbid and Therapeutic Effects of Mental and Moral Influences.—Dr. A. B. Palmer, Mich.

On the Cause of Extinction of the Aboriginal Races of America.—(Continued.)

On the Causes and Treatment of Un-united Fractures.—Dr. F. H. Hamilton, N. Y.

On Diphtheria.—Dr. Lucius Clark, Ill.

On the Uses and Abuses of Pessaries.—Dr. Jas. B. White, N. Y.

On International Medical Ethics.—Drs. J. Baxter Upham, Mass.; R. Thompson, Ohio; G. Shattuck, Mass.; G. C. E. Weber, Ohio.

On Climatology and Epidemic Diseases.—Drs. C. W. Parsons, R. I.; P. A. Stackpole, N. H.; T. M. Logan, Cal.; R. C. Hamill, Ill.; J. C. Weston, Me.; B. H. Catlin, Conn.; C. L. Allen, Vt.; T. Antisell, Washington, D. C.; J. W. H. Baker, Iowa; Abraham Sager, Mich.; O. S. Mahon, Md.; J. W. Russell, Ohio; D. F. Condie, Pa.; H. Townsend, N. Y.

On Autopsies in Relation to Medical Jurisprudence.—Dr. T. C. Finnell, N. Y.

On so-called Spotted Fever.—Dr. J. J. Levick, Pa.

On the Introduction of Disease by Commerce and the Means for its Prevention.—Dr. A. N. Bell, N. Y.

Permanent Secretary American Medical Association.—Dr. Wm. B. Atkinson, of Philadelphia.

Assistant Secretary.—Dr. H. R. Storer, Assistant Secretary.

On Patent Rights and Medical Men.—Drs. David Prince, Ill., Thos. Antisell, D. C., and Stephen Smith, N. Y.

The report, after much discussion in relation to the election of the Secretary, was finally adopted.

It was moved that a committee be appointed to report at the next meeting on the Ligature of the Subclavian Artery. Adopted, and the following gentlemen selected as that committee: Drs. Willard Parker, N. Y., Armsby, Albany, Norris, Philadelphia, and Mussey, Cincinnati, O.

REPORT OF PRIZE COMMITTEE.

The prize was awarded to Dr. S. Fleet Speir, for an Essay on the Pathology of Jaundice.

The Association then adjourned until four P. M.

THURSDAY, JUNE 9.—AFTERNOON SESSION.

The Association was duly called to order by the President.

The Chairman of Arrangements announced the following members by invitation: Drs. Barent Staats, Albany State Medical Society; E. M. Hunt, State Medical Society, New Jersey; H. C. Geely, Indiana.

Dr. C. C. Cox submitted the following resolutions:

Resolved, That a committee of three, consisting of Dr. T. L. Smith, of New York, Dr. Wilson Jewell, of Pennsylvania, and Dr. B. F. Bache, U. S. N., be appointed to memorialize Congress upon the subject of the attempted wrong to the Medical Corps of the Navy, as indicated by a widely circulated protest of the line officers of that branch of the service, against the very moderate increase of rank given to medical officers by a General Order of the Department of the 13th March, 1863, which increase in rank

by no means corresponds in extent to the advancement in rank of the officers of the line thus protesting.

The following resolutions were also offered and adopted.

By Dr. Raphael, N. Y.:

Resolved, To amend the fourth article of the Constitution so as to insert after the word ticket (fifth line) the words "except in case of the President, who shall be nominated and elected by ballot in open session of the Society, the member receiving a majority of all the votes cast to be declared elected."

Dr. Duhamel, Washington, D. C.:

Resolved, That the members of the American Medical Association tender their thanks to the gentlemen of the medical profession of the city of New York, for the hospitality and civilities extended to them during their stay here.

Resolved, That we also tender our thanks to Mayor Gunther and the gentlemen of the public institutions, who have extended to the members of the Association much kindness and attention.

Dr. McGugin:

Resolved, That the committee appointed for the purpose of drafting a suitable bill to be presented to Congress for its consideration and adoption on the subject of the relative rank of medical officers of the army be, and they are hereby instructed to embrace in its provisions a further separation of the Medical Department from the commanding officers of the line, in order to have a more perfect and unrestrained control of its interests and greater efficiency in that branch of the service.

Also by Dr. McGugin:

Resolved, That each member of the Association is hereby earnestly requested to furnish to the Chairman, or any member of the Standing Committees appointed to report upon the subject assigned them, at the next annual meeting, all facts in his possession, and his experience touching the subject matters upon which said committee are required to report.

Dr. Palmer, Mich.:

Resolved, That, as the representatives of the profession of the country, meeting at the moment when the greatest military collision of modern time is at its acme, producing almost unprecedented numbers of wounded and suffering men, calling for the greatest skill and devotion, imposing the deepest responsibilities, the most intense labors, and the most patient and painful endurance on the part of the military surgeons, we cannot separate without a formal and heartfelt recognition of the services of our brethren in the field and hospitals, who have been and are at this moment so nobly responding to all these demands—and while cherishing their immense and invaluable services as an honor to our profession, we commend these men and the memory of their deeds in the cause of science and patriotism, of civil government, of Union, of liberty, of humanity, to the gratitude of the country, whose life as well as that of their heroic patients they are laboring to preserve.

THE SUBJECT OF SPECIALTIES.

Dr. Homberger, N. Y., offered a resolution for adoption, which had reference to defining the relations which should exist between specialists and general practitioners of medicine, and moved that the Association, in order properly to consider the matter, should resolve itself into a Committee of the whole.

The resolution was favored by Drs. Elsberg and Gardner, N. Y., Storer, of Boston, and others; but was lost, and a motion prevailed to lay it on the table and have a special committee of five appointed to report at next meeting.

The usual resolutions of thanks to the President, Secretary, Committee of Arrangements, and others, were passed without comment.

CONCERNING DR. MORTON, THE ALLEGED DISCOVERER OF ETHER.

Dr. Henry D. Noyes, delegate from the New York Eye Infirmary, offered the following resolution:

Whereas, There is now pending in Congress an appropriation donating to Dr. T. G. Morton, of Boston, the sum of $200,000, for his services in connexion with the introduction of sulphuric ether as an anæsthetic agent; and

Whereas, The said Dr. Morton, by suits against charitable medical institutions for infringements of an alleged patent covering not only sulphuric ether, but the state of anæsthesia however produced, has placed himself beyond the pale of an honorable profession and of true laborers in the cause of science and humanity;

Resolved, That the American Medical Association enter their protest against any appropriation to the said Dr. Morton, because of his unworthy conduct, also because of his unwarrantable assumption of a patentable right to anæsthesia, and further, because private beneficence in Boston, New York, Philadelphia, and other places, has already sufficiently rewarded him for any claims which he may justly urge.

Resolved, That a copy of these resolutions be sent to the Chairman of the Committee of Ways and Means in the House of Representatives at Washington.

Adopted.

Dr. Raphael, of New York, believed that Dr. Morton was generally conceded to be the inventor of anæsthesia, and as such should receive a due amount of credit and emolument. If Congress thought best to vote that amount of money to the Doctor it had a perfect right to do so, and it was no business of the Association to interfere. He hoped that the resolution would not pass.

(Loud calls for question! question!)

Dr. Moran, of R. I., moved the adoption of the resolution, which motion was carried with but two or three dissenting voices.

The reports of the several Sections were on motion adopted.

Some unfinished business of minor importance was then disposed of, after which the Association adjourned to meet in Boston the first Tuesday in June, 1865.

On Thursday evening the members visited the house and laboratory of Dr. Squibb, in Brooklyn, and were elegantly entertained. Notwithstanding the inclemency of the weather a large number were present.

On Friday, those of the delegates who remained in town accepted the invitation of the Commissioners of Charity to visit the different institutions under their charge, and on Saturday the invitation of Mr. McDougal, Medical Director, Department of the East, was accepted to visit the Military Hospitals at David's Island, N. Y.

THE MEETINGS OF THE SECTIONS.

The afternoons of Wednesday and Thursday were devoted to the meeting of the different sections of the Association.

Surgical Section.

WEDNESDAY, 3 P. M.

The section assembled at three P. M., and elected Dr. A. Van Dyck, of Oswego Co., Chairman, and Julius Homberger, N. Y., Secretary.

Dr. Gurdon Buck, N. Y., exhibited his case of autoplastic operations of the face, with which our readers are already familiar. Dr. B. stated, at the conclusion of the presentation, that the case had already been presented to the Medical Society of the State of New York, and was to be published in the Transactions of that body for 1864.

On motion, a vote of thanks was tendered to Dr. Buck for the exhibition of his very interesting and instructive case.

TREATMENT OF CONGENITAL CLEFT PALATE BY MECHANICAL APPLIANCES.

Dr. Kingsley, N. Y., read a paper on "The Treatment of Congenital Cleft Palate by Mechanical Appliances," in which he assumed the following positions, viz.: "1st. The only necessity of operating at all is with a view of improving articulation." "2d. The operation of staphyloraphy in all decided fissures of the velum is without material results in benefiting the speech." "3d. The only treatment now known which can produce this result is the filling of the fissure with an elastic mechanical appliance." This artificial velum is made of vulcanized rubber, and so formed as to restore as nearly as possible the natural shape of the hard and soft palate, reaching the whole length of the opening, terminating near the fauces. It is so flexible that it may be carried in

any direction the muscles act upon it, and so elastic as to regain its position as soon as the muscles are relaxed; and to the eye of the physiologist seems to perform as nearly the function of the natural velum as could be expected of any piece of mechanism. The exhibition of the practical application of this velum in the mouths of patients present elicited the admiration of all who witnessed it, and certainly proved that it was all that was claimed for it. The application of this artificial palate renders it possible for a person suffering from this defect to learn to speak well.

The Paper was referred to the Committee on Publication.

Dr. Mussey, Ohio, differed with Dr. Kingsley as to the effect which the division of the muscles had upon the speech, and related three cases upon which he had operated by that method with success.

Dr. Raphael, N. Y., had seen a number of cases in which such an operation had been performed, but in none of these had the speech been at all improved.

Dr. Buck stated that he had operated upon quite a variety of cases of cleft palate, but he had not met with that success which Dr. Kingsley had by the employment of the vulcanite apparatus already alluded to.

Dr. Homberger, N. Y., asked if any of the members had operated upon cases of cleft palate by Langenbeck's method.

Dr. Post, N. Y., remarked that in his cases of staphyloraphy he had endeavored to raise as much of the soft parts from the bone as it was possible to, and supposed that he had raised the periosteum also.

The Paper was then referred to the Publishing Committee.

NEW SYRINGE FOR INJECTING THE LACHRYMAL DUCT.

Dr. McFarlan, N. Y., exhibited a new syringe for the treatment of the diseases of the lachrymal duct, and read a discription of the instrument. It is composed of a silver canula the thickness of an ordinary probe; the whole is adapted to a small gutta-percha syringe with the capacity of about thirty or forty drops. The tube joins the syringe at a given angle, in order to facilitate its adaptation to the duct into which it is to be introduced. He thought it particularly advantageous in the treatment of that condition of the canal which often remains after a pre-existing stricture has been fully dilated. Under such circumstances there was present a muco purulent discharge, which was often, by the use of other measures, inclined to be very obstinate and long continued.

Dr. Homberger stated that his experience had taught him that, after the stricture had been fully dilated, the discharge which had before existed, and which was coincident with that condition, disappeared entirely.

Some discussion here followed bearing principally upon the practicability of injecting the sac, and was partaken in by Drs. Homberger, McFarlan, Hutchison, and others.

The section then adjourned until three P. M. on Thursday.

Section on Meteorology, Medical Topography, Epidemic Diseases, Medical Jurisprudence and Hygiene.

WEDNESDAY 3 P. M.

The section was organized by the election of S. W. Butler, of Pennsylvania, Chairman, and A. N. Bell, of New York, Secretary.

The first business in order was the consideration of Reports of Commitees. Dr. Hibbard submitted a report on Compulsory Vaccination, and reported a series of resolutions, which, after being amended, were adopted as follows:

Resolved, That this Association deems it a duty to institute measures looking to the vaccination, ultimately, of every person within the limits of country over which it exercises jurisdiction.

Resolved, That a Central Committee of five be appointed to enlighten the public mind, by all available means, upon the value and necessity of universal vaccination.

Resolved, That the Central Committee be authorized to appoint Associate and Auxiliary Committees in each State.

The adoption of the Report being in order, after much discussion and some modification, it was voted to refer the Report and Resolutions to the Association for publication in the Transactions.

The Report on Military Hygiene was submitted by Dr. Andrews, of Illinois, limited, however, in its scope to the Hygiene of Military Hospitals.

On motion, it was voted that the report be referred back to the Association for publication in the Transactions.

A voluntary communication on the Physiological and Dietetical Properties of Phosphorus was read by Dr. John H. Griscom, of New York.

After a detailed exposition of the extent and amount in which this substance is found in the various tissues, fluids, secretions, and excretions of the body, there being scarcely one in which it is not a constituent, whereby its importance is properly inferred—the practical application was made of the influence of a deficiency of phosphorus in a variety of diseases of the osseous, nervous, muscular, digestive, and respiratory organs. Scurvy, resulting from too free use of salted food, was shown to be probably due to the loss of phosphates, which Liebig has proved to be removed by the salt, and is found in the brine. Fresh meat, as well as fresh vegetables, proves to be an antiscorbutic, doubtless in both cases on account of the phosphoric acid. It was fur her shown that modern modes of preparing food of several kinds deprived it of this element to a large extent, to which many evil results are attributable. Especially is this the case with that "life-preserver of the world"—the wheat grain. By the bolting process, 1400 per cent. of this element is lost. Several specimens of *Farina Cocido*, or roasted wheat, as extensively used in South America, were presented to the section, and highly commended as substitutes for

superfine flour, retaining as they do all the phosphatic matter of the grain. The paper elicited many favorable remarks, and was unanimously recommended to the Association for publication in the Transactions.

Dr. Ramsay, of New York, submitted a table of sanitary statistics, etc., which, on motion, was referred to the Association with the recommendation that it be referred to the Committee on Publication, with power.

Adjourned till Thursday, 3 P. M.

Section of Practical Medicine and Obstetrics.

WEDNESDAY AFTERNOON.

Prof. B. Fordyce Barker, of N. Y., was elected Chairman, and Dr. Storer, of Boston, Secretary.

THE USE OF THE PESSARY IN PROLAPSUS UTERI.

The meeting being organized, and ready for the transaction of business, Dr. Gardner, of N. Y., read a paper on "The Use of the Pessary in Prolapsus Uteri." He took strong grounds against its use, advocating that it is not only of no avail but absolutely injurious, by inducing irritation to the vagina, etc.

Dr. Storer, of Boston, rose and spoke against the argument presented, stating that he had found the pessary of great value in these cases, and cited instances in which it had proved very beneficial.

Dr. Peaslee, of N. Y., also opposed the views of the author, and thought him too general in his statements.

Dr. Hancock, of N. Y., endorsed the views of Dr. Gardner, and by him a motion was made to refer the paper to the committee of Publication.

Dr. Mendenhall, of Cincinnati, hoped the organization would not adopt the views set forth by the author.

Dr. Gardner said it mattered not so much whether his remarks were all true or all not true; he would like them to have publicity, that the profession might be led to give the subject their serious consideration.

Dr. Toner thought the Association should publish nothing except what had the sanction of the majority of delegates.

Dr. Storer objected to this view of Dr. Toner, and thought the publication of new theories the only sure way to advancement.

A vote was taken on referring it to the committee of Publication, and carried in the affirmative.

Dr. Levick was next introduced, and read an article on "Spotted Fever," as regards the propriety of calling it "*Cerebro-Spinal Meningitis.*" He very clearly discussed this point, and showed that it is a *general* and not local affection, and that the cerebro-spinal meninges *are not* always affected, but that the *lungs*, *stomach*, and other organs may be diseased as well. He cited a case of a rugged woman who took it in a well marked form, and died in

twelve hours; and on a post-mortem examination, the brain and spinal cord were each found to be in a normal condition, while the lungs and other organs were in a state of echymosis. Thinks the term "cerebro-spinal meningitis" no more appropriate than to name a *genus* from one of its *species*. The term "*spotted fever*" is characteristic and should be retained, though "*malignant influenza*" would be appropriate. Thought the name important, as it had a bearing on the manner of treating it, which he spoke of in a general manner.

Dr. Lyman, of N. Y., concurred in the remarks just made, and thought the views entertained by the author correct, and moved their acceptance.

Dr. Fisher, of N. Y., requested that, as the author has already been over this subject, he be invited to furnish the literature of the same, with his mode of treatment, etc.

Dr. Hooker, of New Haven, was convinced that not only the "members with grey hairs," but the students coming on, would be benefitted thereby.

Dr. Grantz wished to call on Dr. Lyman for the plan of treatment he had spoken of, which was briefly given.

Dr. Levick rose and said he was thankful to the gentlemen of the "section" for their kind reception of his remarks, and stated that his treatment had been quinine and brandy generally; and was of the opinion (though without experience) that turpentine would be beneficial.

Dr. McArthur, of Illinois, stated cases in which it appeared plain that the disease was due to *miasmatic* influences, and cited instances of a sugar distillery appearing to give rise to it.

Dr. Crittenden, of N. Y., thought no regular course of treatment could be pursued, owing to the different phases presented, etc.

Vote taken and carried to refer the paper to the committee of Publication.

Dr. Storer next presented an article entitled "The Relation of Female Patients to Hospitals for the Insane; the Necessity, on their Account, of a Board of Consulting Physicians to every Hospital." He gave a clear and interesting account of the manner in which these hospitals are usually conducted, showing that all the responsibility rests upon the medical superintendent in charge; and thought these females, inasmuch as their insanity is often due to menstrual derangements, should have the benefit of medical advice. He thought the Butler Hospital a model institution in this respect, and hoped this Association would take measures to correct this present existing and unphilanthropic evil, and closed his remarks by offering a resolution in substance (though not in words) as follows:

Resolved, That for each hospital for the insane females, a competent physician be appointed, whose office shall be honorary, to be consulted respecting such females, etc.

Dr. Gardner heartily endorsed the views of the author, and moved they be accepted and referred to the committee of Publication.

Dr. Griscom objected to the part of the resolution offered, making the appointment simply an honorary one, and thought that the physician should be paid for his services if doing public service.

Dr. Green, of Mass., also favored the honorary appointment, and was followed by different members on each side. After a vote to strike out the clause making it "honoray," which was lost by 21 to 22, it was voted to be accepted by the "Section," to be adopted by the Association, and handed over to the committee of Publication.

An adjournment was then moved and carried, to meet again at same place to-morrow at 3 o'clock P. M.

THURSDAY AFTERNOON.

The Section was called to order by the Chairman.

Dr. Sands read a paper by Dr. H. O. Hitchcock, of Kalamazoo, Mich., upon a case of death from entrance of air into the uterine cavities. We hope to be albe to furnish our readers with an abstract of the same at some future time. On motion, it was referred to the committee on Publication. There being other business for transaction, and the time for adjournment having arrived, it was voted to hold another meeting at 8 P. M.

Section on Hygiene, Etc.

THURSDAY AFTERNOON.

Dr. Jonathan Kneeland, of N. Y., presented a voluntary report on some of the causes promoting the extinction of the Aborigines of America. This paper points out graphically the manifold evils which are surely moving onward towards their certain doom, the Onondagas, one of the six nations of American Indians. The power of syphilis, scrofula, and the vices of civilization, engrafted upon the improvidence of barbarism, are set forth, and the physical peculiarities of this strange people are ingeniously pointed out.

The report was, on motion, referred to the Association, with the recommendation that it be sent to the committee of Publication for publication in its Transactions.

Dr. Thompson, of Ohio, Chairman of the committee on Milk Sickness, presented a report, which, on motion, was also referred to the Association for publication.

Dr. Charles W. Parsons, of Rhode Island, presented a Special Report on the Medical Topography and Epidemic Diseases of Rhode Island, which, on motion, was referred for publication. On motion, the section adjourned.

Section on Materia Medica.

THURSDAY AFTERNOON.

At the meeting of the Section of Chemistry and Materia Medica held at 3 P. M., Thursday, Dr. Griscom, of N. Y., was elected Chairman, and Dr. Jas. Hart Curry, of Westchester Co., Secretary.

Dr. McGowan, of Washington, D. C., presented, through Dr Griscom, a communication upon "The Introduction and Cultivation of the Cinchona Plant into the Island of Hayti."

Referred to committee of Publication.

Dr. E. R. Squibb presented his paper from the committee upon the Practical Working of the U. S. Law, "To prevent the importation of Adulterated and Spurious Drugs and Medicines."

The paper was discussed by Drs. Percy, Squibb, Mussey, Brown, of Providence, and Hutchinson, N. Y.

Dr. Hutchinson moved to refer to the Association with a recommendation that it be published.

On motion, an amendment was proposed of striking out certain parts of the report in conclusion relating to personalities, which was lost, and the original resolution carried.

The Section then adjourned.—*Amer. Med. Times.*

Absorption of Dead Bone.

Dr. W. S. Savory read a paper (Feb. 23, 1864) before the Royal Medical and Chirurgical Society. The question he stated, whether dead bone can be absorbed, still awaits a satisfactory answer. For while careful and accurate experiments have furnished only negative results, there are unquestionable facts which compel us to admit the possibility of the occurrence. One all important consideration seems to have been hitherto neglected in the inquiry—the influence of pressure in determining the result. Thus, in the experiments which have been performed on the subject, and which have naturally led to the conclusion that dead bone may be kept amidst living tissues for weeks or months without losing the merest fraction of its weight—in these experiments the dead bone was kept in simple contact only with the living parts. It appears that no considerable pressure was maintained. Whereas when ivory pegs are driven into bone, extreme pressure is of course produced. In order to test this view, some experiments were performed, which are related in the paper. It appeared to the author that the only explanation which can be offered of the results of these several experiments is, that the absorption of dead bone, when in contact with living bone, is determined by the pressure to which it is subjected.

Mr. Hilton said the profession ought to feel obliged to Mr. Savory for having adduced by well-considered and well-arranged experi-

ments such conclusive evidence of the absorption of dead bone by the surrounding tissues—a fact not usually admitted by surgeons. He (Mr. Hilton)had several times noticed, on looking at two ivory pegs which had been used in the same case of ununited fracture, and apparently under the same conditions, that the surface of one of them was partially absorbed, while the other did not manifest any loss of substance—a difference hitherto inexplicable, but now elucidated by the author's paper, as depending upon the variable pressure to which they had been subjected An interesting point, however, presented itself for consideration to which the author had not made any reference—viz: what was the amount and duration of pressure required to induce this absorbtion? for dead bone was often seen buried within granulations which were undoubtedly capable of exerting much pressure without the slightest appearance of any absorption having occurred. For instance, in the case of an amputation through the femur, the same end of the bone may come away necrotic after several months' subjection to the pressure of muscles, fascia, granulations, bandaging, and strapping, yet the track of the teeth of the saw used at the amputation would be seen as cleanly cut and as sharply defined as on the day of the original operation. The same kind of facts was quite as discernable in cases of compound fracture of a long bone, where the fractured end of bone, although surrounded deeply by granulations and new bone during several months, would present the sharp, well-defined edge of the fracture as evidently as on the day of the accident, uninfluenced by the pressure of any of the surrounding living tissues. Mr. Hilton had removed from the leg several portions of a comminuted compound fracture of the tibia eight years after the accident and seven years after the closure of the external wound, and upon two of them the well-defined edge of the original fracture was obvious and markedly different from the serrated edge observable where the piece of bone had been separated from the living bone by the slow process of absorption. Mr. Hilton would suggest to the author the inquiry as to how or by what combination of minute events does pressure contribute towards the absorption of the dead bone, because the pressure in his (Mr. Savory's) experiments was made equally on both the living and dead bone. No doubt such an investigation could not be placed in better hands than Mr. Savory's.

Mr. Savory said he had considered it best in the paper simply to demonstrate the fact that the absorption of dead bone is determined by the pressure to which it is subjected. In working at the matter, of course he had thought of the nature of the influence thus exercised, but he did not consider any opinion which he might have formed on the subject worth expressing. The question was not in relation to the absorption of bone, whether living or dead, but to the effect of pressure on the absorption of dead bone. With respect to the case Mr. Solly mentioned, it was not enough to show that dead portions of bone bore evidence of having been partially absorbed: it must be shown that such absorption occurred after the death of the bone, and thus independently of all pressure. Mr.

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Savory defended the use of the word "absorption." He had not employed the term without foreseeing the objection that might be urged against it; and so he had been careful to relate how, in some of the experiments, the wounds at once closed, and completely healed without any discharge or other means by which disintegrated fragments of bone might have escaped. Moreover, if the preparations were examined it would be seen that, in some of them, the portions of dead bone which had been removed could not have escaped, for the holes were tightly plugged by the pegs which had been driven in. With reference to the destination of the bone which disappears in disease, Mr. Savory thought that the evidence advanced to prove that this is always disintegrated and cast out, was unsatisfactory and inconclusive. Of course, in some forms of ulceration of bone, as in phagedenic ulcers of soft parts, disintegrating fragments might perish and escape; but in other less destructive forms of ulceration bone might disappear through absorption. Much had been made of the fact that the discharge from carious bone contains an unusual abundance of phosphate of lime, this being supposed to represent the dissolved osseus tissue. But while, on the one hand, this would prove too much, the proportion of bone which disappears not being equal to the quantity of phosphate of lime discharged, on the other hand, a better, a more philosophical explanation of the fact might be given. As in health each part assimilates to itself from the blood its own proper constituents, so in abnormal forms of nutrition it was reasonable to believe that the material furnished by different structures would present characters of composition more or less corresponding with those of the tissue whence it proceeded. Be this as it might, however, in some at least of the experiments described there was no means by which the portion of bone which had disappeared could have escaped externally.—*Med. Times and Gaz., March 5th*, 1864.

New Operation for Obtaining Union of an Ununited Fracture, with Remarks on its Application in Certain Cases of Recent Fracture.

Mr. E. R. Bickersteth, in a communication made to the Royal Medical and Chirurgical Society (March 8, 1864) stated that in bringing this subject before the attention of the Society, he proposed to mention some cases that had occurred in his practice, to show the successive steps by which he arrived at the process in question. He had frequently tried, in vain, friction, acupuncture, and subcutaneous division; and though resection of the ends of the bone had been successful in some instances, it was a proceeding involving a considerable risk to life. Dieffenbach's method had proved to be more successful; but this operation, though conducive to the formation of new bone, in no way provided for what was of paramount importance, viz: absolute immobility of the op-

posing fragments. The large external wound and injury done to the soft parts in introducing the ivory pegs were also objections to this operation. Recognizing the happy influence of Dieffenbach's plan of exciting ossific deposit, and at the same time feeling the importance of keeping the ends of the bone in a condition of absolute immobility, the author was induced to try a modification of the operation; and in the case of a man admitted under his care, at the Liverpool Royal Infirmary, with an ununited fracture of the radius, he drilled a hole through the ends of both fragments, and passing a stout wire through it, secured the bone in perfect apposition. Union took place in seven or eight weeks, but on endeavoring to remove the wire so much traction was necessary that it caused the fracture again to be ununited. The difficulty of removing the wire induced the author to think of some other plan not open to this objection; and in the case of a man with an ununited fracture of the thigh, by means of a common Archimedean drill, he bored two holes in such directions that each passed obliquely through both ends of the fractured bone, and into each introduced a steel rod with a screw at the end. To this it was necessary to make an incision three inches in length. Much constitutional disturbance followed, the wound suppurating freely. In ten weeks the splints were removed, but no union had taken place. The limb was then confined in gum and chalk bandages. Symptoms of pleuro-pneumonia came on, and he gradually sank. A post-mortem examination showed tubercular deposits in the ends of the bone and other parts of the body. There was no attempt at repair at the seat of fracture, except where the drills had pierced the bone, and here there was a deposit of new bone. This proceeding showed that it was quite feasible to fix the bone in the manner described without exciting too much inflammatory action; and also that the steel rods caused the formation of new bone. The next case was a fracture of the lower maxilla, where the bones had united in such a position as to render the patient a most unsightly object. As the incision that would be necessary in this instance for the purpose both of putting the bone into proper position and removing the deformity of the soft parts would not allow the use of external splints or supports, and as it was found impracticable to effect this object by fixing the teeth by an appliance within the mouth, it was absolutely necessary that some means should be devised by which the divided portions of the jaw could be securely fixed; and it occurred to the author that pegs or nails would answer the purpose, especially as he had already observed their presence caused so little inconvenience. Accordingly, at the operation, the plan just mentioned was carried out, and the apposition of the fractured portions was secured by means of two round-headed nails. They most effectually answered their purpose, and no external splint or bandage was required. The case did well, no undue action being set up. On the 22d day after the operation, one of the nails came away. The patient left the In-

firmary perfectly well, the jaw being firmly united in its proper position, and the deformity of the soft parts removed. One of the nails still remained in; and the last account states that its presence caused no inconvenience. The third case recorded was one that presented many points in common with the one just narrated. No external incision was made, and ordinary drill-heads were substituted for nails. The result was everything that the author could have wished. These cases show how regularly and with what good effect fractured bones may be fastened together. Surgeons have ever recognized the use of sutures with regard to the soft parts. Why should we not, in cases of difficulty arising from an inability to keep the surfaces in proper apposition, adopt the same plan with the bones? Might not this process be applicable in some cases where division of the tendo-Achillis is required, or where such an operation as sawing off the ends of the bones is indicated? From a consideration of the cases narrated, Mr. Bickersteth proposed to treat an ununited fracture by passing one or more drills through the broken ends of the bone in such a manner as to secure their perfect immobility, and without making any external wound beyond that caused by the entrance of the drill. The limb should then be secured by properly-adjusted splints, and kept at perfect rest. After two or three weeks the drills may be removed, and water dressing applied to the punctures. For several weeks after it would, of course, be desirable to continue the use of the splints. In conclusion, the author begged to place upon record three cases of ununited fracture recently treated by his friend, Mr. Fletcher, on the plan that he (Mr. Bickersteth) had suggested, and in each the result had been most satisfactory.

Mr. Ferguson said that he scarcely remembered to have heard a paper of greater surgical interest than the one just read. It had the merit of bringing out much that was going on in the modern practice of surgery, and he thought the paper would lead to greater improvements in practice. Here was further proof, he continued, of the advantage of wire and metal in instances in which in former times we were loth to use such materials.

Mr. Holmes Coote rose to correct what he believed was a very general and erroneous impression as to the views of Dieffenbach. This surgeon used to cut down to the ends of the bones and pass in ivory pegs with the hope of creating irritation; but, if he could do it easily, he used also to fasten the ends of the bones together. Mr. Coote thought that three classes of cases ought to be distinguished—first, those in which there was union in good time; second, those in which union was simply retarded; and third, those in which union could not be obtained, as the ends of the bones were in a state of fatty degeneration. In the third, no good results could be hoped for.

Mr. Barwell, while agreeing with what had fallen from Mr. Holmes Coote concerning the degenerated condition of bones, considered that such condition was the result, more frequently

than the cause, of non-union. It was a law of animal nature that any organ losing its function should degenerate. Thus, when a bone lost its power of support, the surrounding muscular pressure and other conditions of its healthy life, it would surely degenerate; but until that degeneration had reached a high point it might still be restored. A remarkable case had occurred to him lately, which would also show that in certain instances the admirable plan proposed by Mr. Bickersteth would be unavailing—as in cases where the non-union was produced by a large quantity of soft parts intruding between the fractured ends. The case alluded to was as follows: About eighteen months ago a man broke his arm about two inches and a half above the elbow. He was admitted into the Charing-Cross Hospital. The fracture united well, and the man was discharged, cured. The same night, however, he got very drunk, and broke his arm again, but took no notice of the circumstance, continuing drunk for about a fortnight. Two months ago he again entered the hospital with a broken arm. As Mr. Barwell had been for some time taking the duty of his colleague, Mr. Canton, this case came, about a fortnight ago, under his observation, and he determined to operate. The upper and lower fragment was on the outer side, its lower end overlapping the head of the radius. The inner end of the lower fragment was half way up the inner side of the arm. The movement to and fro of this portion was very considerable; but there was always a wide interval between the two bones, which was occupied constantly by the anterior brachial muscle, sometimes also by part of the biceps, and in certain positions it seemed as though the artery and nerve also got between the fragments. The man having been placed under the influence of chloroform, Mr. Barwell made an incision two inches long over the outer fragment, and turning out its end, sawed out a wedge-shaped piece, so as to leave an angular gap or notch in the end of the bone. The inner fragment lay so far away from the wound, and in such close proximity to the artery and nerve that the greatest care was required in getting its end to protrude at the wound. This, however, was accomplished without any untoward accident, and the end was cut into a wedge shape, so as to fit with some degree of accuracy the interval in the upper fragment; traction was made upon the arm, and the two portions fitted together, and with the aid of a splint they retained perfect apposition. A singular condition of bone revealed itself during the operation—namely, that the periosteum on the upper fragment was loose, and could be slipped up off the bone as a man might turn up his shirt sleeves. The tissue was carefully replaced, yet, on account of this condition of bone, he (Mr. Barwell) could not but look at the issue of the case with some anxiety. The man had as yet (ten days afterwards) no bad symptom.—*Med. Times and Gaz.*, March 19, 1864.

Physiology of the Cerebellum.

Dr. P. Lusanna, directing attention to two experiments on birds, in which the usual appearances of irregular and disordered motions were manifested on injuring their cerebella, the author commences his lecture by citing the opinion of Flourens, that co-ordination of the voluntary movements is the function of this organ. Clinical observation on man has not favored this view; paralysis or powerlessness of voluntary movement, rather than disorder, characterizes lesions of the cerebellum. In a turkey, which Lusanna had succeeded in preserving some months after removal of the cerebellum, this powerless condition of the motor faculties was very manifest. At first, in the turkey, for several days disordered and irregular movements were present, but these gradually gave place to paralysis. Patients complain of being unable to feel the ground below their feet, but their movements are not really paralyzed. Lusanna believes that the cause of the symptoms is *loss of the muscular sense*, which co-ordinates voluntary movements. This sense differs from cutaneous sensibility in its anatomy, by its central organs, by its peripheral apparatus, and by its nerves. In its absence, an animal no longer feels the solidity of the earth on which it stands; it does not feel the resistance of the medium in which it flies or swims; it no longer feels the impenetrability of objects which oppose its progress, nor the weight of any body it attempts to seize or carry.

In man, diseases of the cerebellum usually give rise to hemiplegia of the opposite side of the body, most marked in the inferior extremity. In animals, the peculiar rotatory movements are disordered efforts at movement, but are nevertheless always voluntarily executed.(!) In birds, the disordered movements are bilateral or general; in mammals, they are unilateral. In the former, the cerebellum is one single mass superimposed on the medulla oblongata, and there is in it no decussation of its crura; in the latter, there are two lateral and a central lobe, and the posterior crura decussate. There is a correspondence in all classes of animals between the perfection of muscular sense and the development of the cerebellum. Lusanna is further of opinion that the cerebellum is the organ of the erotic sense, and that the middle lobe is this special seat of this function.

In reply to some critical remarks of Dr. Brown-Séquard on the above paper, Dr. Lusanna, in a subsequent article, adduces further proof of the correctness of his theory that the cerebellum is the organ of the muscular sense: He affirms that in 128 recorded cases of affection of the cerebellum, there is not one in which the symptoms were not those which characterize a lesion of the muscular sense, expressed, not by a state of irritation, but by want of action. If one such case, well observed, in which a *considerable* lesion of the cerebellum is not accompanied by lesion of the voluntary movement in some part of the body, can be adduced, Lu-

sanna is willing to give up his theory. In the case of Schroeder van der Kolk, cited by Brown-Séquard, in which, after a wound of the cerebellum, the patient could walk or mount a ladder, there is no proof of any considerable destruction of the organ, and the symptoms would rather be those of irritation than of absence. A wound of the brain does not annihilate intelligence, yet no one asserts that the brain is not the organ of the intellect. If an animal, which has survived the removal of the cerebellum, does not exhibit signs of the loss of the muscular sense, the author is willing to abandon his theory. Experiments on fishes confirm what the author has observed in warm-blooded vertebrata. When vomiting, irregularity of the circulation, syncope, and convulsions occur, they indicate injury of the medulla oblongata, and are usually of fatal import. On the other hand, lesions of motility are by all experimenters regarded as characteristic of injury of the cerebellum.—*Ed. Med. Journ.*, May, 1864, from *Journ. Physiol.*, 1862, and April, 1863.

The La Pommerais Case.—A homœopathic practitioner of Paris, named La Pommerais, has been lately condemned to death for the murder of his mistress, who he had previously induced to insure her life in different offices to the amount of one hundred and ten thousand dollars. The payment of the life insurance, in this case, has given rise to very interesting medico-legal questions.

First, it may be asked whether the sum for which the life of the victim of the charlatan Pommerais was insured, will have to be paid over to her children, and, secondly, whether the transfers executed by her in favor of La Pommerais are valid, and his representatives will have any claim on the companies. The insurances, it is contended, will be available for the children of the murdered woman. It is established, and the companies have not, it is believed, disputed the fact, that they did not sign the contracts drawn up in her name and for her behalf without having taken all the preliminary steps usual in such cases, and obtained all the information respecting the insurer when they covenanted to pay a specified sum. The conditions of the contract between Madame de Pauw and the companies were fulfilled so far. She had been visited by the companies' medical officers, who reported that her health was excellent, and that the insurance might be safely effected; and the first premium was punctually paid. The policies of insurance specify only two cases where insurance companies may refuse payment—suicide or death in a duel; but when the party insured is murdered, his or her heirs must not suffer by the crime of a third party, nor are the companies released from their engagements. It was the woman's life that was insured, and not La Pommerais's; and in no case would the latter take anything by the transfer of her title to him, as it was shown to be obtained by fraud.—*Am. Jour. Med. Sciences.*

Bibliographical Notices and Reviews.

Journal of the Discovery of the Source of the Nile. By JNO. HANNING SPEKE, Captain of H. M. Indian Army; Fellow and Gold Medalist of the Royal Geographical Society; Honorary Member and Gold Medalist of the French Geographical Society. With Maps and Portraits, and numerous Illustrations chiefly from Drawings by Capt. GRANT. New York: Harper & Brothers, Publishers. 1864.

This, though not a medical work, will not fail to interest medical men. It abounds in information, and information too that is to some extent new. The subject of medicine is but incidentally touched upon, yet enough is given to show that the natives of the different kingdoms through which the author traveled are in the most profound ignorance of the subject. Nor are the descriptions of the negro physique sufficiently full to be satisfactory. Drawings are given, it is true, of the forms of some of the tribes, but while the characteristic negro portrait is readily discerned, sufficient observations were not made to enable the student of ethnology to replenish his stock to any great extent. The same remark applies to other departments of the fauna of the region traversed. But more in regard to these subjects in another connection.

The expedition to Africa by Capt. Speke was undertaken for the purpose of discovering the source of the river Nile. Having been in Africa twice previously, the author discovered, on his second visit, Lake N'Yanza, which at his instance has since been called "*Victoria* N'Yanza." This discovery was made on the 30th of July, 1858. This lake lies under the Equator, extending from 3° South latitude, to a few miles north of the Equator, at which point is situated "Ripon Falls," the commencement of the Nile, as the author afterward established by personal observation.

The author traveled under the auspices of the Royal Geographical Society of England. He entered the African continent on

the eastern side, at Zanzibar Island, situated 6° South latitude, and thence proceeded in a north-westerly direction, until he arrived at a kingdom in South latitude 1° 42′ 42″, and 5,500 feet above the sea. At this place he met with a king, *Rumanika*, who sympathized with him in his undertaking, and who also proved to be of much service to him. From Karague he traveled to Uganda, situated on each side of the equator. Here he also found a king like the one in Karague, who favored him with an escort, and the facilities the country afforded, of traveling to "Ripon Falls," where the Nile is connected to Lake Victoria N'Yanza. Having accomplished his purpose—having seen with his own eyes the source of the noble river, so classical throughout all time—and having solved the problem that has so long occupied the attention of geographers, the author followed the course of the Nile north until he arrived at the trading station of the Turks, between the third and fourth degrees North latitude, and thence to Alexandria. Thus he crossed the continent from south to north, traveling a distance of some three thousand miles, a large part of the way (1,300 miles) on foot. From the coast of Zanzibar to Uganda, the kingdom in which the discovery was made, the journey was performed on foot; and from this place again to the trading station of the Turks, on the White Nile, *Godonkora*, where he emerged, February 15th, 1863, having been absent about three years.

The reader will be ready to ask, How was it possible for an Englishman to travel such a distance through a country of hostile savages? Well, in the first place, he provided himself with an escort of armed natives. The company numbered some 200 men, 12 mules, 3 donkeys, and 22 goats. The men were made to perform the double duty of soldier and porter—that is, they were armed with spears, guns, etc., and carried at the same time cooking utensils, the stock-in-trade for the natives, such as brass wire, beads, pistols, watches, scarlet cloth, calico, etc.

On looking through Capt. Speke's Journal, we find much that might well be noticed. Our space, however, forbids anything more than a few general remarks.

We have in these travels considerable in the way of contributions to geography, hydrography, etc. Capt. Speke remarks that the continent of Africa has a high and central plateau, with a higher rim of hills surrounding it; from below which, exteriorly,

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it suddenly slopes down to the flat strip of land bordering on the sea. Lake Tanganyika, near the center of the continent, is said to be surrounded by argillaceous sandstones. The central plateau seems to be made up largely of basins of fresh water (lakes). These overflow from the rains, the streams cutting through the flanking rim of hills find their way to the sea. The Nile rises from Lake Victoria N'Yanza, three thousand feet above the level of the sea, and flows to the north, emptying into the Mediterranean. From the same general geological formation arises the Niger, and, as Livingstone conclusively proved, also the Zambesi. As all know, the distance from Alexandria to the first cataract is 700 miles; from this place to the confluence of the White and Blue rivers, which constitute the Nile, 700, making the distance 1,400 miles from Alexandria to the junction of the two rivers. The White Nile, as we have just seen, Capt. Speke traced from Lake N'Yanza. The distance from this point to Alexandria, supposing, with Capt. Speke, this to be its source, is not far short of 2,500 miles, thus making the Nile the longest river in the world. Capt. Speke thinks the Blue Nile insignificant as compared with the White.

The reader of Capt. Speke's journal will wonder to himself whether this Lake N'Yanza is the head of the Nile. May not a series of streams flow into this lake from the east, a part of the country not yet explored, and also from the south? Speke, without any doubt, has established the great hydrological fact that the White Nile issues from Lake N'Yanza (Ripon Falls) in a stream 200 feet wide and 12 feet deep, still it remains yet a question whether this is the head-waters of the Nile. At what place is situated the watershed that gives the first impulse to the Nile? From Zanzibar the route of the author lay through vast reedy plains, parallel to the west shores of the N'Yanza. He crossed, in making this journey, a large river, which seemed to him as full of water as the Nile. This river—the river of Karague—is therefore regarded, and perhaps properly too, as the head-waters of the Nile.

The rains in Africa follow very nearly the track of the sun, and lasting not more than forty days upon any part the sun crosses. In the center of the continent, within five degrees of the equator, the rain is more lasting. For instance, at 5° South latitude, for the whole six months the sun is in the south, rain continues to

fall, and the same takes place at 5° North; while on the equator, or a trifle to northward of it, it rains more or less the whole year round, but most at the equinoxes. In the month of January, 1861, it rained 19 days; February, 21 days; March, 17 days; April, 17 days. In June, July and August there was the least rain. Capt. Grant made thermometrical observations in the region bordering Lake N'Yanza. From these we learn that the mean temperature was from 70° to 73° for every month in the year. The thermometer seems not to rise above 84°, or to get lower than 53°. The mean annual temperature then of Equatorial Africa, is 70° to 73° Fahrenheit. The winds were found in Central Africa with an easterly tendency, deflecting to the north and south, following the sun. In the dry season the winds were cool, sufficiently so to render the atmosphere very pleasant. The author walked every mile of the road dressed in woolen clothes, and slept every night between blankets.

A collection of plants was made during the tour by Capt. Grant, the companion of Capt. Speke. The collection consists of 750 species, collected between Zanzibar and the southern border of Egypt. Of these 420 belong to known species—or nearly two-thirds belong to published species; not more than 80 or 100 species are quite new. The collection is thought to show great uniformity in the tropical African vegetation. The plants seem to botanists to indicate a poor flora and dry climate, most probably. Among the new discoveries are a new genus of *Leguminosæ* and another of *Cyperaceæ*. At the equator vegetation, as we have seen, grows in great profusion, because of continuous rains and fertile soil. But some five or ten degrees south of the equator where the dry season lasts for six months, the natives are compelled to lay up stores to enable them to live through this season.

We learn less, as above suggested, than might have been expected from this work, on the subject of ethnology. Capt. Speke traveled more for researches in the departments of Geography and Hydrology than for collecting facts for the ethnologist. But throughout the journal, more or less may be gathered which will nourish the young science of Ethnology a little, if nothing more.

The author, in his remarks on the fauna of the African Continent, disposes rather bluffily of the peculiarities of the African physique. He says he found the man of Africa to be "the *true curly-*

head, flab-nosed, pouch-mouthed negro." Numerous drawings are given by Grant, the companion of Speke, of the kings, the queens, the soldiers, and the common men and women, who make up the population. From all of these the characteristic portrait is apparent. Any one who has ever seen a negro, or even the portrait chiseled out on Egyptian monuments some four thousand years ago, would recognise at once the characters of the face and head sketched by Capt. Grant. The compressed receding forehead, flat nose, thick lips, prognathous jaws, pouting mouth, receding chin, together with the peculiarities of other portions of the body, impress the beholder at once that he has a race before him which is a little peculiar. The outlines are so striking, and the uniformities so remarkable, not only of individuals, but also of tribes, that the beholder imagines himself to be really in the presence of people in regard to whom, and for whose benefit, a special creative act has been performed. But little is said about the color of the inhabitants. Where it is mentioned it is said it was black. In this respect it differs from what Livingstone found further south. On the central plateau and on both the eastern and western coasts, Livingstone found the jet black to prevail, while on the mountainous regions skirting the coast, the inhabitants were coffee-colored. In stature the specimens figured look to be of medium height, with very good muscular development. Upon the legs, the figuring shows vasti and gastrochnemii to be very fully formed. This originates, most probably, from the circumstances that a savage people use the lower extremities more than the upper. A group of men of the tribe of Kide is sketched. They all appear to be high in the calf of the leg, with long arms, and the muscles of the chest well developed. Many opportunities were afforded of testing the realities of the race odor. Grant, for example, is figured on page 148 dancing with a young princess. He has just recovered from a spell of sickness, and is giving himself up, apparently with much resignation, to the suggestions of the plantaris muscles. Capt. Speke himself spent weeks and months in positions instructive to the olfactories. This race odor is something very peculiar. It differentiates very precisely. A blind man may sometimes tell who is in his presence by it. It seems to proceed from glands situated in the skin that get up a compound in the perfumery line, the chief constituent of which is fat. On account of its fatty constituent it is less evanescent than had water been the menstruum

of the odoriferous ingredients. While at rest it accumulates on the surface, and becomes very demonstrative after a while. This circumstance is not regarded by barbarous people, and hence their rank odor.

In the esthetical department, we notice but little contribution to our former stock of information. The inhabitants without regard to position, from Zanzibar to the Wahuma country on the northwest side of Lake N'Yansa, were all accustomed to but little else in the way of clothing than the fig leaf. The Wahuma people improved a little on this by using, to some extent, the skins of the antelope, and in some instances by manufacturing from the fibres of bark a kind of cloth, with which they partially covered the body. Public opinion, nevertheless, was not in favor of clothing on the score of decency. Queens and young princesses seemed to have no misgivings on the propriety of showing themselves at court attired exclusively in the garb of the cuticle and its appendages. Why is this? we might ask the philosopher. The temperature, as we have seen, is something like that of an Ohio summer, though far from the intensity of heat we have just experienced during the last month (June). At 75° Fah., woolen clothes are very comfortable here. Why not in the Wahuma kingdom, where this, as we have seen, is about the average temperature of the year?

Everywhere there appeared to be an absence of anything approaching in appearance to a house. The natives, including the royal personages, build huts of mud and bark. These were numerous in places, approaching the character of villages. The kings had some arranged in which court or consultation was held. Some of these huts were very neatly thatched, though all inhabited by fleas. The author found it a very nice sanitary regulation to burn over the floor of those assigned as his quarters. All of the natives, and this was true also of kings, sat on the ground. They ate with their fingers, knives and forks being unknown or not regarded.

Various have been the speculations in regard to the African on the score of industry. Will he work? Does he work at home? Will he provide against the contingencies of seasons? These questions have been partially answered by travelers heretofore. The testimony of our author is to strengthen what we have heard from Livingstone, whose opinions appear to have been carefully

expressed—expressed after a long sojourn among the natives. The African, it would seem, does not care to work. In the region near the Equator, there is less need for work, because the spontaneous production in the way of animals and vegetables is such that but little labor, except what is necessary to gather food, is indispensable. On each side of the Equator, however, at the distance of five or six degrees, there is a dry and there is also a wet season, as before remarked, of some six months duration each. In these localities, our author states, the inhabitants were frequently visited with famine because of carelessness and laziness in making at the right time a proper provision. He found also in his experience with them, as servants and porters, that they have a very high opinion of lying down in the sun by the side of a little job of work. He often had to nudge them, and kick them, and even thrash them, to get them to do their work. We put a question here again to the philosophers, Why is it the negro shows such an indisposition to physical exertion? A boy is not very uncommon who is disinclined to work. We explain his case by saying that his bones are not matured, and labor hurts him. This explanation does not apply to the African at maturity. Warm weather relaxes both mind and body, so far as the European or American is concerned, and hence, in the summer season, shady places, out of sight of labor, are preferred. But does this apply to the African? He is in the climate that suits him. He has neither winter nor summer; neither warm weather nor cold weather; and yet he spends his elbow grease very reluctantly. It might be suggested to the philosophers to go to work, and see if the muscle cells, the explosion of which is said to constitute the essence of muscular contraction, are in any respect different in constitution from those of the white man. The chemistry of these cells might be looked into, so also their vital endowments. Perhaps chemistry may show material not easily ignited, slow to take fire. Should the investigation of the muscular cells fail to reveal anything satisfactory, the inquiry might be extended to the brain in the hope of solving the problem. This organ has the power, it is supposed, to set the muscles in motion, and keep them in motion for a while. What is there here that might prove suggestive? Well, the African, to begin with, has less brain than the European,—eleven cubic inches less on the average. This though is only a matter of quantity, and it is known that industry is far from being confined

to the big heads of either a community or a race. Now, might not the peculiarity of the African be due to something or other in the chemical composition of the brain? Having now pursued the question thus far, we leave it in the hands of the chemists, with the remark that we should be pleased to hear from them.

The moral status of the negro of the portion of Africa traversed by the author is about that given by other travelers. Unacquainted with Christianity or Mohammedanism, or, indeed, with any form of religion, and having neither knowledge of God nor ideas of a future state, the African has no conscience, no sense of right or wrong, and, as a consequence, lies, steals, robs, or takes the life of his neighbor without the least remorse. The king holds all of his subjects in a state of slavery, selling them (which our author says is the principal commercial business of the country) to the slave-traders for the most frivolous offenses. The wives of the more humane of the kings frequently shared the fate of the common culprit. Nothing was ever thought by Rumanika, one of the best of the kings, of ordering a wife executed on starting out on a hunting excursion. In a case given, a subject was shot by the king's son and at the king's instance, merely to try a gun that had been presented to the king by Capt. Speke. Of morals, therefore, among the Africans, it may be said there are none. The practices that obtain are the result of usages and traditions transmitted from generation to generation, or of the whims and caprices of the occasion. Almost all of the kings were found to believe in magic, and possess magic horns filled with magic powder. Into these they looked for coming events, the movements of enemies, the character of the seasons, etc. By these magic horns, too, the objects of visitors, who came into the country from a distance, were divined. Many times travelers have been thwarted in their purposes, and sometimes murdered, upon the evidence of a magic horn. War in Africa seemed to be an established institution. It was carried on most frequently for the purpose of capturing slaves to sell to the traders, or for the possession of territory. As a consequence of this policy, tribal characters were all the while undergoing changes, and kingdoms were often without any well-defined limits. One custom universally present was, to exact of travelers a tax *(Hongo)* for passing through the kingdom. This tax had to be paid. or the traveler, if even in force sufficient to defy a direct assault, was annoyed in many ways. The tax levied was what at

the time it was supposed the traveler was able to pay. If, after receiving it, it was ascertained that he was able to pay more, a new demand was made. In many instances our author had to protest, rave, swear and threaten against the robbery, though not always did he carry his point. The beating of the drums, which signified leave of departure, was often delayed until the tax first agreed upon was paid three or four times over. As a consequence our author is very profuse in his encomiums upon the African kings as being up to the mark in the way of treachery. He found not one free from this vice, though he found it associated with different degrees of ingenuity.

The moral condition of the people did not seem to be improving. It has rather deteriorated, the author thinks, since foreigners have had access to the interior of the continent. The slave and ivory traders have carried their sins to the native African, and made him worse than he otherwise would have been. A system something like the English have in India is, in the author's estimation, the only hope for Africa. The country is fertile, mostly well watered, and would respond to the labors of the agriculturist, but the inhabitants think of present wants only, and such too as relate exclusively to the stomach. A superior race, the author thinks, will have to take charge of the African, and learn him how to live.

No nation of people seems to be so poor in the way of inventive genius as not to find out something that will stimulate, something that will awaken an extra flow of feeling, and cause the individual to believe himself fully all that he is. Everywhere the author found the natives acquainted with the manufacture of beer (pombé), and the use of it was common among subjects as well as among the kings. Visitors were treated to it without stint, and they found it not bad to take. It readily produced intoxication, and the kings were in the habit, no less than other classes, of taking a high, and keeping it up for days. The author taught one of the kings the process of distilling from the pombé a more concentrated article, the effects of which would be more prompt. This was a nice bit of information highly prized by the king. From the accounts given, the pombé constitutes a staple article of drink. Few meals were taken without it by the royal family or those connected with the villages. None were so ignorant that they did not know how to make pombé. They were very liberal in offering it to

visitors. "Pombé! pombé! take a little pombé, white man," was by no means an infrequent greeting of the women.

Here is another nut for philosophers to crack. Why this universal desire among heathen as well as enlightened nations for something to stimulate? Is there really in mankind an *alcoholic sense* that physiological considerations require should be attended to? Or is there just naturally in human nature a great tendency to deflection from the perpendicular towards the alcoholic point (pint)?

Physicians are always interested in the observations of the traveler in new countries. With respect to African medicine so much has been written, and what has been written concerning medicine among the negro population, is so much alike, that the subject has almost ceased to prove of any interest. Every traveler nevertheless sees something either to confirm previous reports or to extend knowledge a little. All observation shows that there is no nation, however uncultivated, without its medicine and its doctors. The Africans have both, and in about a degree that corresponds with other things among them. At Usui, east of the Wahuma country, a doctor was met with that the author styles "a great doctor." As he was about a fair sample of the profession, we will give the author's description of him:

"In front of his hut he had his church or uganga—a tree in which was fixed a boc's horn charged with magic powder, and a zebra's hoof suspended by a string over a pot of water sunk in the earth below it. His badges of office he had tied on his head; the but of a shell representing the officer's badge being fixed on the forehead, while a small sheep's horn fixed jauntily over the temple, denoted that he was a magician. Wishing to try my powers in magical art, as I laughed at his church, he begged me to produce an everlasting spring of water by simply scratching the ground. He, however, drew short up, to the intense delight of my men, on my promising that I would do so if he made one first."

From this the doctor's professional attainments may be gathered as well as the bearings of his mind. He seemed to have character with his people, answering their ideas of what ought to be embraced in the character of a physician. The majority of the diseases, it would seem, were cured by magic; the greater the magician the greater the doctor. But the African doctor had his drugs. He it would seem was very far from belonging to any of the one-idea schools. The drugs were obtained occasionally from trav-

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elers, and also from the Arab traders. Sometimes native plants were used. For the cure of malarious diseases, when inveterate, the cautery was employed. It was also used in some of the kingdoms for all severe diseases. The King of Unyora wanted the author to give him a medicine that would attach all of his subjects to his throne. This was certainly an example of great confidence. This king had most likely never read Holmes' "*Currents and Counter Currents.*" Why not send him a copy? The African ought to know something of the "silver hoe" that Oliver Wendell says a colonist of Massachusetts cured himself of an attack of typhoid fever with, "and thus, most likely, saved the infant colony of Massachusetts." The African king believes in medicine. He employed the author to physic not only himself, but also the queen. But it may be said that he believed too in the magic horn in the cure of disease. This would make him something of a latitudinarian. Oliver Wendell disbelieved in drugs, but believes in the "silver hoe" in typhoid fever. What's the difference? "Training pills" were sometimes used by the natives. They were made of the buds of roses and sugar. Before starting on a march it was the custom of the natives to take these pretty freely. One of the natives was very eloquent and elaborate in his description of the effects of these pills.

An account is given of what took place when it was ascertained that one of the women of position at court had been delivered of still-born twins.

"The women went about in procession, painted and adorned in the most grotesque fashion, bewailing, screeching, singing and dancing, throwing their arms and legs about as if they were drunk, until the evening set in, when they gathered a huge bundle of bullrushes, and covering it over with a cloth, carried it to the door of the bereaved on their shoulders, as though it had been a coffin. Then setting it down on the ground, they planted some of the rushes on each side of the entrance, and all kneeling together, set to bewailing, howling and shreeking incessantly for hours." With some tribes it was the practice to look upon twins as an unfavorable omen. As a consequence, to propitiate the gods, they were killed as soon as born.

Some queer practices obtained with regard to burial. For instance, Kimera, a king of great character, was buried with state honors. The body was first given to the king's most favorite consort, whose

duty it was to dry it effectually, by placing it on a board resting on the mouth of an earthen pot with fire in it. When the drying process was completed, at the expiration of three months, the lower jaw was cut out and neatly worked over with beads. The umbilical cord, which had been preserved from birth, was also worked over with beads. These were kept, and the body consigned to a tomb and guarded ever after by an officer and a certain number of the king's most favorite wives.

African kings seemed to be fond of fat women. To be fat was to be very lovely, very exquisite. Queens, princesses, and, indeed, all connected with the royal household, were required to make themselves as fat as possible. This practice obtained in the three most enlightened kingdoms. The author gives the case of a sister-in-law to King Rumanika, who became a wonder of obesity. She was measured carefully: Height, 5 feet 8 inches; round the arm, 1 foot 11 inches; chest, 4 feet 4 inches; thigh, 2 feet 7 inches; calf, 1 foot 8 inches. This woman was unable to stand except on all fours. The article of diet employed in the fattening process was milk. Female members of the royal family, when young, were placed in charge of a guard, who confined them in a sitting position, furnishing them at the same time with a pot of milk and a straw to suck it with. The attendant provided himself with a switch, that he used freely if necessary to keep up a constant sucking of the milk. The patient was not allowed to stop when the appetite was satisfied. She had to keep up the sucking process, or suffer the penalty.

Here is a little matter for the physiologist, if not for the physician. The process, according to the testimony of the author, answered the purpose admirably. Two things in it are apparent: absence of muscular exertion, and the use of milk. The condition of the body, as well as the material employed in laying on fat, will bear, perhaps, the test of criticism. Rest is really indispensable in the process, and it appears to be a well established fact in dietetics, that those articles best calculated to fatten are those that contain in themselves a large proportion of fat, or contain elements easily changed into fat. Milk is one of the two substances that seems to contain all of the elements, fifteen in number, that enter into the composition of the body, and hence its adaptation to the organism of the infant. It is the food, cooked and seasoned by nature, for the infant. Chemists tell us that in

1000 parts of milk we have 25 parts of fat and about 45 parts of sugar, a substance easily metamorphosed into fat. Here, then, is the secret of the utility of milk in fixing fat in the system. The African is right in the means used to accomplish his ends. The pombé or beer, in such general use as we have seen, would not answer the purpose so well as milk, though we should think it might prove an important adjuvant.

It might now be inquired whether or not, this measure is totally without suggestions. In many conditions of the system, an important thought of the physician is to supersede the morbid movements by encouraging, or even exciting, the nutritive process. Whisky is administered, and is popular in consumption, on the supposition that it lifts the organism by degrees above the chachectic influences. It is presumed that it sometimes stops the deposition of the tubercular matter; or, after deposition has commenced, prevents an increase thereof, or promotes its absorption. All agree, whatever differences there may be in the views touching the *modus operandi*, that stimulants in the disease to which we have alluded, once in a while accomplish good results. Now, why not use milk for the purpose that we use stimulants? Why not set the consumptives at once, all over the country, to sucking milk? The article is far superior in nutritive materials to any of the preparations of alcohol. Besides, it is free from the objection, often well taken, to the use of stimulants. The practice of the African to make his wives beautiful is, like the hunt after the philosopher's stone, fruitful in suggestions, to say the least.

From what the author has said, and really from what he has not said, the inference is very clear that the tribes of the portion of Africa over which he traveled enjoy good health. Sickness, the sickness of the natives, figures but slightly in his narrative. The climate is mild, differing in temperature but little from that of a cool summer day in Ohio. Certain localities, the rush drains and the flats, of course engender disease, but these are generally given over to the possession of wild animals. The natives build their huts in the more healthy places. The African, however, shows an aptitude to contract disease on change of latitude. Those inhabiting the arid regions to the south, do not bear very well a transportation to the equatorial, where the vegetation is rank and the rains frequent and copious. Sir George Gray, the Governor

of the Cape, kindly furnished the author with a number of Hottentot soldiers to serve as a part of his escort. They were taken from the Cape to Zanzibar, but on arriving there became pretty much all sick, and proved to be an utter failure. The change in climate they seemed to be unable to withstand.

Negro life is not wasted to any great extent by disease. The population is kept down by war and the slave-trade. The system of polygamy, practiced by the kings, gives rise to a race of half-brothers, who, on the death of the father, and sometimes before his death, all aspire to the prerogatives of the crown. This gives rise to war—often a war of extermination. The slave-traders, on all sides of the continent, continue to ply their vocation. The kings enter into the schemes of the traders very fully, and secure a large portion of their foreign supplies—in the way of beads, cloth, guns, ammunition, toys, etc.,—by selling their subjects and prisoners of war. A man is traded off with as little compunction as an elephant's tusk would be. The king's subjects, being his property in all senses of the word, he parts with them, or not, as suits his interest, and no one has the right to enter a protest. The Arabs are the principal dealers; they sometimes make journeys into the interior to buy, but often buy all they want on the coast, from the agents of the kings, who have them there in market. The price of a slave at Zanzibar was very low; most of them were bought for a few yards of cloth, a little brass wire, or an ounce or two of beads. The slaves are said to become much attached to their masters.

"In a few years after capture, or when confidence has been gained by the attachment shown by the slave, if the master is a trader in ivory, he will entrust him in the charge of his stores, and send him all over the interior of the continent to purchase for him both slaves and ivory."

"The whole system of slave-holding by the Arabs in Africa is exceedingly strange. The slaves are superior in physical strength and in numbers, and could, if they wished, send the Arabs out of their land flying. It happens, however, that they are spell-bound, not knowing their strength more than domestic animals, and they even seem to consider that it would be dishonest if they ran away after being purchased."

In some instances the slave was free on the death of the master; such was the Mohammedan law. In such a case the slave aspired to become an ivory and slave trader on his own hook, and it is said he often succeeded very well.

Are the Africans all alike? Do the tribes differ from each other in any essential respect? The author remarks:

"Taking the negroes as a whole, one does not find very marked or much difference in them. Each tribe has its characteristics, it is true; for instance, one cuts his teeth or tattoes his face in a different manner from the others, but by the constant intermarriage with slaves, much of this effect is lost, and it is further lost sight of owing to the prevalence of migration, caused by wars and the division of governments. As with the tribal marks, so with their weapons, those most commonly in use are the shield, assegai shield, bow and arrow."

From all that can be learned from the most trustworthy travelers there appears to be but little real difference between the tribes. The Hottentot negro, the Guinea negro, the Congo negro, the negro of the Niger, the Senegal and Gambia, are pretty much alike. His black skin, thick lips, woolly head, and flat nose, are the characteristics, and they obtain with very great uniformity. Alike, too, are they all in regard to intellect. The civil and social state of the Congo is the civil and social state of the Hottentot, and of every other unadulterated tribe on the continent. Much has been said in regard to the superiority of certain tribes. It has been alledged that some are naturally more humane, and more easily taught. All such speculation amounts to nothing. The African is the African—just like the American Indian is the American Indian wherever found. Negro land in Africa has had its coasts occupied with foreign races as long as anything has been known. The country, too, has been perforated from every point of the compass by traders. The result is an admixture of the races in many places, giving rise to an hybrid race, and the introduction, to a certain extent, of new habits and customs, or, to say the least, a great modification of the vulgar, lazy bearing of the natives. This is very obvious at the Cape and as far north as Orange river. So, also, is it along the entire northern and western borders of the continent, where, in some instances, the mixture has been so complete that a kind of new type has sprung up. Many kingdoms in the interior of the continent are governed by foreigners of mixed blood, who, from adventure and skill, have won the confidence of the people. From all this it may be seen why it is the traveler meets with diversity in African character, aud why it is he comes to the conclusion that some of the tribes are so much more industrious and intelligent than others. The truth is, the unmixed negro, surrounded by the circumstances of an African climate,

with his own instincts and reason in full and healthy play, is the same being wherever found. In *physique* he is the same that he was when the artists of Egypt amused themselves, some four thousand years ago, in figuring him on monuments. In his civil state he is the same to-day, according to the observations of Captains Speke and Grant, that he was when his social condition was first discovered.

The kingdoms through which the author passed differed some in the character of the kings, their temper toward travelers, etc. After leaving Zanzibar, and for a long distance west and north, the kings were very badly disposed. Finally, a country was reached, lying to the west and north of Lake N'Yanza, in which the kings were more sensible; and, after hearing fully the objects the author had in view in visiting the country, seemed to enter fully into the subject, favoring him with all the facilities for travel at their command.

The country embraced in these kingdoms was formerly called *Wahuma*. It is now divided into four kingdoms, Uzinza, Karague, Uganda, and Unyora, situated in the order mentioned from south to north, and extending from 2° 30′ south to a short distance north of the Equator. The royal personages presiding in these States, from a number of circumstances, were supposed to have come from Abyssinia. This was a tradition current in the country, and supported, the author thinks, by a number of facts. They were more humane than their neighbors, had advanced to the knowledge of working in iron and brass, raised cotton to a limited extent, were more inclined to agriculture, and were better mentally and morally. They were the only kings met with who were not afraid to congratulate the travelers on their arrival in the country, lest famine or some other disaster might follow. Some specimens of the royal family had straight hair, and a *bridged* instead of a *bridgeless* nose.

As the civil and social state of these tribes were carefully observed by the author, he having spent the most of two years among them, a remark or two in regard to them may not prove useless in the way of making up correct opinions on African character. They were all found to be pastorals; agriculture obtained to but a limited extent, and it was carried on mostly by the women. The arts were also cultivated to a limited extent. They understood smelting iron, and the making of a few rude instruments.

The women made out of bark a few articles of clothing. Cotton was raised and used for the same purpose. All classes, however, went naked, except a slight covering for the pelvis. The kings all sold their subjects to the traders, the Arabs, and in this way procured supplies of foreign articles. The kings were absolute in authority, requiring of officers the most implicit submission, and their frequent attendance at court. They seemed to delight in making their authority felt, and in punishing the culprit with the greatest severity. The wives of the kings were executed for the slightest offenses, and the king of Uganda distinguished his policy by the execution of one subject daily.

These tribes had a singular way of trying to avoid the contentions that might arise from aspirants among the royal family to the prerogatives of the crown at the death of the king. From a number of wives came, on the death of the king, quite a number of sons, each of whom seemed to be equally entitled to reign as successor. The people immediately, from the whole number, elected one, a minor at the time, and not of too high blood, lest his reign should be prejudicial to the poor. The prince elect together with all of the aspirants were then placed in a hut of instruction, and confined closely. When the prince elect arrived at the age of discretion, he assumed the royal robes. The rest of the prince's companions of his pupilage, except two, who were spared, were put to death. The two were spared so as to have on hand a little royal material, out of which to construct another monarch in case the king should die without offspring. This contingency not occurring, the two young princes were banished. This looks like, as some one has remarked, what is alleged to happen among a certain class of bees, when they happen to have an over-stock of royal grubs on hand.

The King of Unyora offered to the travelers two boys, seized by him as slaves, to be taken to England and there educated. The proposal was declined, as the boys were of the common breed and not likely to be ever loved by any body but their mothers. The king, Kamnis, was told that his own sons would be the most likely to receive an education, and that he ought to part with a couple of them for the purpose. He replied, in a disappointed tone, that he could not spare his own children, and that, any how, they were mere balls of fat, unable to travel.

The language of the people seemed as strange as themselves. It was not destitute of euphony, and on this account it was difficult, requiring one to be possessed of the turn of mind of the negro to unravel and appreciate the concord. A peculiarity was that *Wa* prefixed to the essential word of a country signified men or people; *M* prefixed meant man or individual; *U* in the same way, meant place or locality; *Ki* prefixed indicated the language. In sound the author thought the language of the people resembled that of the Tibet Tartars. In the pronounciation of words the *u* was sounded like *oo* in *woo*. Dr. Krapf wrote a grammar of the Kisuahile language, that is said to be a good guide for the traveler.

Language was found to vary very much in different tribes. The tribes, however contiguous, managed to understand each other, though far from using the same words to convey their ideas. The Hottentot negroes, brought from the Cape, did not understand the languages current at Zanzibar, nor that of the tribes in the interior. This was one of the reasons why these soldiers, tendered, as before remarked, by the Governor at the Cape as an escort, proved to be so useless.

Nilotic discoveries are divided among quite a number of individuals. Bruce, acting on the supposition that the Blue Nile was the more important of the two rivers, reached Abyssinia about the end of the last century. He explored Lake Dembea, the source of that river. In 1827 Linant made a short expedition up the White Nile. A short time after Linant, Arnaud, and Weane passed up for the distance of 1,000 miles, terminating at Godonkora, the place, or settlement as it now is, where Speke first found himself, in returning home, in the hands of his friends. Godonkora is, as Speke ascertained, in latitude 4° 54′ N., and longitude 31° 44′ E. Miani, a French traveler, reached a point a little higher up the river, latitude 3° 34′ N. Krapf and Redman commenced at a small town on the east coast of Africa—Mombas—4° 4′ S. They studied the languages of the people, and made journeys to the interior. These travellers published maps, figuring near the equator two snow-capped mountains. These snow mountains were thought to be identical with the Mountains of the Moon. In 1857 the Geographical Society of London sent Burton and Speke to the eastern coast of Africa, to commence their labors at Zanzibar. They discovered Lake Tanganyika. The route from Zanzibar to this lake lay due west. Burton was the leader

in this expedition. At Kazeh, Burton was taken sick. This is the half-way station between Zanzibar and Lake Tanganyika. At this place Burton dispatched Speke, solitary and alone, northward to a lake, called by the inhabitants Nyanza. Speke reached the southern shores of this lake in latitude 2° 45′, S., longitude 33° 30′ E. Speke heard from the natives that the lake had a northern outlet—that a river originated from it on its northern side. He came to the conclusion that that river must be the Nile. The expedition we have been noticing was planned to investigate that hypothesis. Speke, on coming home to England, told Sir Roderick I. Murchison what were his impressions. Sir Roderick, after hearing him very fully on his theories, said to him, "Speke, we must send you there again."

The Royal Geographical Society advanced for the expedition some $12,500, all of the instruments necessary, fifty artillery carbines, with belts and swords attached, 20,000 rounds of ball ammunition, and some rich presents in the way of gold watches for the kings.

Capt. Grant, an old friend and brother sportsman in India, of Speke, hearing of the expedition, asked to go along. On the 27th of April, 1859, Captains Speke and Grant embarked on board the steam frigate Forte, at Portsmouth. After a long voyage, touching at Madeira, they arrived at the Cape of Good Hope July 4th. Sir George Grey, then Governor at the Cape, induced the Cape Parliament to advance to the expedition £300, for the purpose of assisting in the expenses of the outfit. The Governor also placed a steamer at the service of the travelers, on which they sailed for Zanzibar, arriving there July 16th. He also furnished the travelers, as before remarked, with some Hottentot soldiers.

This book is written in very clear style. It will prove to the general reader perhaps rather dry, because of its elaborate details. This, however, makes it valuable. African life is minutely given. Nothing, it seems, of any value, is left out. The work, as a consequence, will be looked upon as a fair and faithful representation of men and things in the portion of the continent through which the author traveled.

The Royal Geographical Society has the credit of this expedition, which has terminated so successfully in the line of discovery. The fog hanging over Central Equatorial Africa has been dispelled. The geographer will hereafter be enabled to occupy the

"unknown regions" with some very interesting figures. The question, too, as to the source of the Nile, is put at rest.

Editorial and Miscellaneous.

Speke's Travels in Africa.—In the Bibliographical department will be found a notice of the journey of Captains Speke and Grant in Africa, undertaken for the purpose of searching out the source of the Nile. This Journal ought to interest physicians. A good medical mind grows up after reading not merely the prescribed routine of works strictly professional, but everything bearing in any way on the subject of medicine. In the Collateral department we have Topography, Geography, Hydrography, Meteorology, Geology, etc. We hazard nothing in saying that the diseases of a country are poorly understood by any one not to some extent acquainted with these subjects. These physical sciences, if properly invoked, will do much to explain the origin of the diseases of a country. The works of the late Dr. Daniel Drake investigate the diseases of the Interior Valley of the Mississippi from the physical standpoint, and, we regret to say, they are nearly alone in this respect. The first volume is almost entirely on the physics of the region, the conditions under which the diseases seem to arise.

Captain Speke provided himself with all the instruments proper for surveying, for taking latitude and longitude, for ascertaining the temperature of the weather, quantity of rain, direction of winds. We learn for the first time, from these travels, the real source of the Nile, and how it is that it issues in the form of a cataract (Ripon Falls) from Lake N'Yanzi. We learn that at the equator, and for five or six degrees on each side, rains are very frequent, following the course of the sun. Beyond these lines it seldom rains, the country being dry and the flora very poor. We learn that Central Equatorial Africa is characterized by the presence of a number of fresh-water lakes, from which several of the principal rivers of the continent originate. We learn that the temperature

of the atmosphere varies but little the year round—the mean annual is about 73° or 75° Fah., the thermometer not often sinking below 53° or rising above 84°. As a consequence, we feel quite refreshed to find out that the poor natives of Central Africa, imagined to be dying from heat and drouth, have a climate the temperature of which varies but little from that of one of our cool summer days in Ohio.

The type of man encountered by the travelers differed but little, if any, from that found in other portions of the continent. In the Wahuma country, now divided into four kingdoms, the kings were supposed to be of Abyssinian origin, and were not so averse to the objects of travelers. The common people, however, were ignorant and degraded.

A New Medical College at Cleveland.—We notice in the Cleveland papers a list of the Faculty of a new Medical Institution to be established in that city, under the cognomen of "Cleveland Hospital Medical College." The names of its Faculty disclose the fact that it is composed of some of the most prominent medical men of this and other States. G. C. E. WEBER, M. D., (Surgeon-General under Gov. Tod,) takes the Chair of Civil and Military Surgery; J. H. SAULSBURY, of Albany, New York, that of Histology and Physiology; Dr. DUTCHER, of Enon Valley, Theory and Practice; Dr. DASCOM, of Oberlin, Chemistry and Toxicology; W. J. SCOTT, of Franklin, Materia Medica; J. L. FIRESTONE, of Wooster, Obstetrics and Diseases of Women and Children; ROBERT NELSON BARR, (present Surgeon-General,) Anatomy; A. E. METZ, of Massillon, Opthalmic Surgery; Dr. STRONG, Glandular System; M. S. CASSEL, of Cleveland, Medical Jurisprudence.

The basis of the College will be the union of clinical and didactic teaching. The plan is to combine, to the fullest extent, these two methods of instruction, not devoting attention to either method at the expense of the other, but aiming to give the utmost practicable extent to both. As this Institution will be in direct competition with the one already in operation at Cleveland, nothing of course will be spared to make it complete in all its departments.

Dr. WEBER, the Dean of the Faculty, is now in Europe, collecting data and material for the benefit of this new College of Medicine.

Died.—Dr. DANIEL ADAMS, of Keene, New Hampshire, died at his residence a few weeks since, at the advanced age of ninety-two. Dr. Adams was one of the earliest graduates of Dartmouth, and a student of Dr. Nathan Smith, Sr. At one time he conducted a medical journal in Boston. He was the author of several school books. Adams' Geography and Adams' Arithmetic had quite a run in the eastern, and to some extent, in the western States. Dr. Adams lived to purpose. He did a vast amount of labor in the line of literature, and occupied a very commanding position in his profession. He practiced his profession until within some fifteen years of his death.

New Method of Operating for Strangulated Hernia.

Professor Max Langenbeck observes that this procedure might perhaps be most fitly termed the subcutaneous reposition of hernia. An opening is made in the skin only large enough to admit the forefinger, not just over, but on one side of the hernia. The finger introduced into the wound easily thrusts aside the connective tissue, glands, fat, etc., and pursues its course until it reaches the inguinal canal or the fossa ileo-pectinea, as the case may be, passing under the skin very much as a bullet does in gunshot wounds. Having reached the point of stricture, the finger practises the subcutaneous isolation of the herniary tumor, destroying any recent adhesions and external exudative structures which may impede reposition, and which are, indeed, often a result of the employment of the ordinary means of reduction. In most cases, this isolation of the hernial tumor can be speedily and easily accomplished; and its size and degree of tension, as well as the thickness of its sac, may be approximately decided upon.

Having reached the point of stricture, we should, in femoral hernia, feel for the horizontal ramus of the pubis and Gimbernat's ligament, and in inguinal hernia for the internal crus of the abdominal ring, and gently compressing the surface of the nail against the neck of the sac, pass the finger in beside it. No great resistance is offered to this by the incarcerated hernia; and by the gentle pressure employed, not infrequently a certain amount of peristaltic action and increased protrusion of the intestine is produced, together with more or less separation of the recent exudation. In the case of femoral hernia, the finger feels distinctly with

its volar surface the sharp edge of Gimbernat's ligament, and at its lower edge the horizontal ramus and pubic ligament upon which it rests. In order to produce dilatation, Ginbernat's ligament is to be ruptured through part or the whole of its extent, or separated from its insertion. The ligament yields to the pressure made by the nail with an audible cracking sound. In inguinal hernia, the end of the finger meets with a greater resistance from the inner crus of the abdominal ring than from Gimbernat's ligament. The resistance is usually, however, overcome by a steady boring motion of the finger against the point of insertion in the pubis. When the resistance cannot be thus overcome, Dr. Langenback employs what he calls an "incision ring." This, constructed of wood or metal, resembles a signet-ring, made as thin as possible, and having affixed to its surface, in the direction of the long diameter of the finger, a cutting edge projecting about 1½ lines. The ring is placed on the finger-point, the cutting edge being on its volar surface, and the finger is introduced through the short subcutaneous canal which it had already made as far as the annulus. By pressing the cutting edge against the sharp edge of the internal crus, this is divided with complete safety to the intestine, which is protected by the dorsal surface of the finger. In order to prevent the slipping off the ring during the withdrawal of the finger, it should be secured by a ligature. The incision made, the necessary dilatation is accomplished by means of the finger. In the case of external inguinal hernia, the resistance of the ring is more easily overcome. As soon as the stricture has been removed, a retractile motion is set up, and the hernia, as a general rule, is spontaneously reduced. Usually it at once passes into the abdomen, sometimes waiting a minute until after the finger has removed some adhesions from around the orifice. When the adhesions are old, and very firm, it is best to rest content with removing the constriction without attempting reposition. After the finger has been withdrawn, there is but a slight appearance of injury at the seat of the operation, and the place where the hernia lay is completely covered with the skin. In none of the author's ten cases did the operation occupy more than five minutes, and in most of them but two. The subsequent course of these cases was also highly favorable, the wound readily uniting, the patients all leaving their beds between the fifth and tenth day, a broad truss being first applied.

Dr. Langenback contrasts at some length his procedure with the ordinary mode of treating hernia, and maintains that, by reason of its much greater safety, and the more rapid recovery which ensues, it is infinitely to be preferred.—*B. and F. Med. Chirurg. Rev.*, April, 1864, from *Allg. Wien. Med. Zeit.*, 1863.

On the Hypodermic Treatment of Uterine Paine.—*By* J. HENRY BENNET, M.D., *late Physician-Accoucher to the Royal Free Hospital.*—During the present winter I have used, with prompt and marked success, the hypodermic injection in several cases of severe dysmennorrhœa, with or without hysterical complications, and in several others of uterine and ovarian neuralgia, and of facial neuralgia having an uterine origin. The relief has been obtained in from fifteen to thirty minutes, without being attended or followed by the headache, loss of appetite, or nausea, which are so frequently the result of the use of opiates in any other way, even by injection into the rectum. This latter mode of administering opiates has hitherto been my sheet-anchor in the treatment of uterine spasms and pain, and is certainly most efficacious; but it is not unfrequently attended by all the above-mentioned drawbacks, from which the hypodermic injection appears to be singularly free. In nearly all the instances in which I have tried this mode of introducing opiates into the system, the sedative result alone has been produced: there has been no subsequent bad effect whatever.

In one case of severe uterine tormina and pain, the result of arrested menstruation from cold, I injected thirty minims of the solution of morphia. In half an hour the pains, which had been agonizing for the previous twenty-four hours, were calmed. A good night's rest followed; and the next morning the menses had resumed their course, and my patient was all but well. In another similar case, the uterine pain was accompanied by severe hysterical symptoms. The injection was followed by the same favorable result—ease, sleep, and a rapid disappearance of all morbid symptoms.

Owing to the complete control over the element of pain which the hypodermic injection of opiates appears to give, I have been able to carry on the necessary treatment in an interesting case of uterine disease, which I should otherwise have been obliged to

treat under chloroform, or at a great disadvantage. The patient, a young German lady of twenty-four, came to Mentone last autumn, by direction of her medical attendants, with the view of spending the winter in the South. She was considered to be suffering from neuralgia, facial and general, and from nervous irritability of the system in general. She had been traveling with her husband from place to place, and from bath to bath, in the search for health, for more than two years. On being consulted, I recognized the existence of a host of uterine symptoms, and found that the neuralgic and nervous illness had manifested itself after a severe confinement which had occurred about three years ago. The discovery of extensive inflammatory ulceration of the neck of the womb gave the key to the state of ill health. Singularly enough, none of her previous medical attendants had suspected the uterine origin of the neuralgia. Such cases are always very difficult to treat —interference with the uterine lesion all but invariably rousing the neuralgia. I have repeatedly had cases of the kind that I could only examine and treat locally by giving chloroform to the full surgical extent on each occasion, and this I have had to do twenty or more times in the same patient.

With the patient in question the surgical treatment of the ulceration was borne tolerably well at first, but as the diseased surface became more healthy, and consequently more sensitive, endurance diminished. Every time the sore was touched, severe neuralgia followed, and the general health began to flag. In former days I should have suspended all treatment, and have sent the patient to the country for a couple of months, to allow the nervous system to calm down, and to let nature do her best. In this instance such a course was not desirable, my patient being very anxious to continue the necessary treatment so as to be locally cured before we separated in the spring. I thought, therefore, of the hypodermic treatment, and tried the injection of thirty minims of the solution of morphia immediately after each uterine dressing. This course was attended with complete success; no neuralgia ensued, and I have been able to continue uninterruptedly the treatment now all but brought to a successful issue. On one occasion I omitted the precaution, and was sent for at ten o'clock at night. I found the patient a prey to a most distressing attack of facial neuralgia, which had come on an hour before. She was positively convulsed and shrieking with agony. Chlorodyne, sulphuric ether, &c., had

been taken, with no relief. I injected the thirty minims of morphia solution, and in twenty minutes she was calm and free from pain. It was repeated next day, and the facial neuralgia has not returned. This lady will no doubt gradually recover her health and get rid of the neuralgia when the uterine disease is thoroughly cured.

In case of pure neuralgia, attacking first one and then another part of the body, I have injected from twenty to thirty minims of the acetate of morphia solution forty-two days in succession, without any unfavorable result. The neuralgia, which was very severe, was entirely subdued by it for about eighteen or twenty hours, when it reappeared, gradually increasing in intensity until the injection again relieved it. At the end of that long period the pains gave way, the treatment having been either curative, or having allowed the neuralgic attack to wear itself out. During the entire period of treatment, the patient, a very delicate lady, slept better than usual, ate as well (her appetite being usually bad, and the digestive powers weak), and was able to take part socially in all that was going on around her. No one, indeed, was aware, except her family, that she was suffering from so painful a malady. To my surprise, I was able to suspend the morphia suddenly, without any of the distress and discomfort which is habitually observed when opiates have been long used and are abruptly abandoned.

From what I have seen of the hypodermic system, I believe that its use is capable of great extension in the treatment of pain generally. I consider that the injection of a solution of morphia after any operation would deaden pain, and produce a general calm of the system both soothing and beneficial to the patient. I think also that this result might be obtained in most cases without the small drawbacks of opiates taken internally.

Some years ago I recommended in the Lancet the injection of opium into the rectum, as a means of modifying and even arresting obstinate sea-sickness. Since then various additional cases have come under my notice illustrating its efficacy. The great difficulty to all medication in sea-sickness is the fact that the stomach absorbs fluids with difficulty. By injecting subcutaneously, this difficulty is got over. Moreover, a subcutaneous injection would be managed easier on shipboard than the rectal injection, to which most people have a very natural antipathy.

I have used all but exclusively a solution of acetate of morphia

in distilled water. Nine grains dissolved in two ounces of water gives a strength about equivalent to that of laudanum. The liquor morphiæ of the Pharmacopœia contains spirit, and I have found that it constantly occasions small patches of painful inflammation; without the spirit, on the contrary, it appears to be quite innocuous. A moderate sized steel needle or canula I find preferable to the small gold one. The steel canula is sharper, and passes easier through the skin. By pinching firmly the fold of skin that has to be pierced, between the finger and thumb, its sensibility to the puncture is much diminished. It does not seem to matter much, as regards results, in which region of the body the injection takes place. I have principally chosen the præcordial region for uterine and general pain, and for local neuralgia a spot as near to the region affected as possible.—*London Lancet.*

Pregnancy without Emissio-Penis.—Prof. Scanzoni relates the case of a woman, aged 29, in whom he detected a four months' pregnancy, although the orifice of the vagina was closed by a firm and tense membrane, in which an aperture big enough to admit a probe was discovered with much difficulty. In his long experience he had never met with a similar instance, although he has seen cases in which remains of the hymen existed, and one in which this membrane continued quite uninjured. The membrane only yielded slightly upwards, so that emissio-penis was completely impossible, and the question is, how did the semen reach the uterine orifice, four inches distant? After the seventh month the opening gradually widened a little, so that a quill could be easily introduced; and by the time labor set in the finger could be passed in. As the labor advanced, there was found to be also a thin circular membrane attached to the walls of the vagina at the junction of its upper and middle third; but a large opening existed in this, so that it caused no obstruction to delivery. As, however, the thickened hymen formed a dense ring, which prevented the passage of the head, a small crucial incision was performed, and the delivery easily terminated.—*Allg. Wien Med. Zeit.*, No. 4. [Dr. Mattei, in *Union Médicale* No. 36, relates a similar case of a woman who became pregnant after having been married 11 years. The husband was aware that she was malformed, but had contented himself with incomplete connection. On

examination, a cul-de-sac was found, which, probably formed through the attempts at copulation, only admitted the finger to the extent of 1½ centimetre. The most careful examination by means of the speculum could not detect the aperture by which the semen must have entered. After severe labor for three days, the tissues in front of the head gave way and admitted the finger. Delivery was completed by the forceps.]—*Med. Times & Gaz.*, May 28, 1864.

New Article of Alimentation.—M. Prevet has recently made some communications to the French Academy in reference to his attempts at introducing *karouba* as an important article of alimentation. A leguminous plant, which especially thrives on the shores of the Mediterranean, the *ceratonia siliqua*, produces a pod, the beans (*karouba*) of which form a common article of nutriment in Algeria, Italy, Spain and Egypt, but which are unknown in France, except to botanists and chemists. Individuals and animals fed upon it in these countries exhibit all the signs of good health, in place of those indications of defective nourishment so often met with among the poorer classes of large cities. M. Prevet, as the result of numerous experiments, has succeeded completely in the torrefaction of the bean, and has produced a substance of most agreeable odor and taste, infinitely superior to the chicory so much used by the lower classes in France, and, in some respects, to be preferred to coffee itself. It does not stimulate like this latter substance, and it is thus better fitted as an article of diet for women and children; while, as its nutritive properties are very considerable, it is well suited where reparative tonics are indicated. It can be sold at a very low price.—*Med. Times and Gaz.*, May 14, 1864.

Preservation of Chloroform.—It requires but a short time for chloroform which is exposed to the sun's rays to undergo decomposition, hydrochloric acid being developed, and a strong odour of chlorine being present. This is prevented if the chloroform is kept in the dark; and when it has undergone decomposition by exposure, M. Boettger finds that it may be easily purified by shaking it up with a few fragments of caustic soda. As long, indeed, as it is in contact with the caustic soda it may be preserved for an indefinite period in diffused light.—*Med. Times and Gaz.*, May 28, 1864, from *Bull. de Thérap*, May 15.

An Ounce of Quinine Administered by Mistake.—Dr. Taussig, of Rome, relates (*Med. Times and Gaz.*, April 23, 1864) the following case of this:

"Dr. Hayler, a military surgeon, visited in barracks a soldier suffering from a relapse of ague, and administered to him a small dose of sulphate of quinine. At the same time he directed a man to fetch one ounce of the same remedy from the hospital, in order that he might have it in readiness for any emergency. The man received the bottle; but, supposing that it was ordered for the patient just mentioned, he took it to him. In the presence of their comrades, they put the whole into a cup, adding sufficient water to make a paste of it; and the patient, although he found the medicine uncommonly bitter, did not leave off until he had taken it all.

"Dr. Hayler, on learning that this enormous dose had been taken, at once visited the patient. The most careful investigation left no doubt of the fact; but, with all that, *incredibile dictu*, except a complete deafness and a kind of stupor, no other bad effect ensued, and no antidote was administered. He was directed to the hospital, where he remained a week under observation, and left the establishment in the best state of health. The ague disappeared, probably never to return. I saw the man myself; he is a Swiss, named Albitz, aged 30, of small stature, and of a strong constitution."

University of Pennsylvania.—Dr. Alfred Stillé has been elected Professor of the Practice of Medicine in this institution, to fill the chair recently become vacant by the resignation of Dr. William Pepper. Dr. Stillé is a highly educated and accomplished physician, an erudite scholar, and an elegant writer, and he will, we feel confident, perform the duties of his position with eminent ability.

Jefferson Medical College.—Dr. B. Howard Rand has been elected to the Chair of Chemistry in this school, rendered vacant by the death of Dr Franklin Bache. Dr. Rand is an excellent chemist as well as an experienced lecturer, and will fill the position with advantage to the school.

Formula for a Solution of Bromine. By Dr. J. LAWRENCE SMITH, Professor of Chemistry in the Medical Department of the University of Louisville.

The frequent demand for bromine from the Louisville Chemical Works, which are under my direction, induced me to inquire for what purpose it was used, and I learned that it was being employed as a therapeutic agent, especially in the form of vapor mixed with air as a purifier of the atmosphere of hospitals, where erysipelas, gangrene, small-pox, &c., existed, and also internally in certain affections of the throat. Knowing full well the inconvenience of the use of the substance in the form called for, I at once undertook to compound a solution which would meet the ends required, and be more convenient for any therapeutical use to which uncombined bromine might be applied. From the slight solubility of bromine, any attempts to dissolve it in water would give too dilute and bulky a solution, the natural suggestion, therefore, was to use but little water and facilitate its solubility by adding bromide of potassium; at first the following proportions were used:—1 troy ounce of bromine, 120 grains bromide of potassium, and 1 fluid-ounce of distilled water; the formula left a small quantity of bromine undissolved, and the solution was too concentrated. After varying the proportions in different ways, I have settled on the following as the most convenient formula:—

℞.—Bromine, 1 troy ounce; bromide of potassium, 160 grains; distilled water, q. s. to make four fluid-ounces of the whole mixture.

Dissolve the bromide of potassium in about two fluid-ounces of water in an eight ounce bottle, then add the bromine, agitate gently until the solution is complete, then add water enough to bring the whole to four fluid-ounces.

This mixture forms a very dark red solution, evolving strong fumes of bromine, and readily soluble in any additional quantity of water.

I have given this formula as one that will doubtless recommend itself to those of the medical profession engaged in using bromine, and it is already being used by the medical profession of this place.—*American Journal of Medical Science, April,* 1863, *p.* 385.